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READINGS IN ECONOMICS

SELECTED AND EDITED BY

THAMES ROSS WILLIAMSON

SOMETIME ASSISTANT PROFESSOR OF ECONOMICS AND SOCIOLOGY IN SMITH COLLEGE
AUTHOR OF "INTRODUCTION TO ECONOMICS" AND "PROBLEMS OF AMERICAN DEMOCRACY"; EDITOR OF "READINGS IN AMERICAN DEMOCRACY"

Let us test our opinions by the knowledge of the most diverse minds, and cling only to what survives the encounter.

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TO
MY FRIEND
MARCUS LEE HANSEN
A SCHOLAR AND
A GENTLEMAN

74,167

PREFACE

This volume is designed to accompany the editor's *Introduction to Economics*, and the choice and arrangement of the material have been influenced by the plan of that text.

In the preparation of this volume the effort has been made to secure the advantages of a book of readings, and at the same time to avoid some of the drawbacks common to such compilations. In this connection the special features of the book may be referred to briefly:

The editor has attempted to strike a judicious compromise between too long and too short selections. It is intended that each selection shall prove sufficiently extended to convey a fair and adequate idea of the author's point of view; on the other hand, the pressure for space in the volume, and the desirability of suppressing material not bearing directly upon the point involved, have led to careful elimination, and, in some cases, to bracketed insertions. It need not be added that, in such cases, care has been taken not to distort the sense of the original.

Despite the wide range of many of the chapters, the editor has attempted to choose and to arrange the selections so that each chapter shall constitute a logical and unified narrative. It is hoped, further, that the volume has gained something of the continuity of a text from the fact that an editorial paragraph has been used, not only to introduce each selection, but to connect and to weave together the two selections between which it stands.

To avoid the unsightliness of type of varying sizes, the same size of type has been used for both editorial introductions and the selections. Care has been taken, however, to indicate precisely where each editorial introduction stops and the selected reading begins.

To help the student to understand the selections, and to facilitate reference, marginal notes have been employed throughout the book.

Questions on the readings are supplied at the end of each chapter. The volume is provided with an index.

These features have been adopted with a double aim. In the first place, it is believed that they will render the volume more useful

and attractive to students employing it in connection with the author's *Introduction to Economics*. In the second place, it is hoped that these features will encourage the use of the volume independently of the editor's text.

The procedure usual in preparing volumes of this kind has been followed. Points indicate omissions, and brackets the insertion of editorial material. Unless otherwise stated in the footnotes, each selection is intended to be an exact reproduction of the original. Wherever feasible, however, capitalization, spelling, and punctuation have been modernized, and where a slight grammatical error threatened to confuse or divert the attention of the student, there has been no hesitancy in correcting the defect. No attempt has been made, on the other hand, to tamper with the style of the selections.

The thanks of the editor are due to the authors from whose writings the selections have been taken, and to the publishers who have kindly permitted the use of copyrighted material.

THAMES ROSS WILLIAMSON.

CAMBRIDGE, MASSACHUSETTS.
March 8, 1923.

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READINGS IN ECONOMICS

PART I — THE DEVELOPMENT OF AMERICAN INDUSTRY

CHAPTER I

THE MAKING OF NORTH AMERICA

1. The origin of the earth[1]

The story of the origin of the earth

What is the origin of the earth upon which we live? What is its age, and how did it come by its present form? These questions are of fascinating interest to those who have observed how closely human history is bound up with earth history, and yet such queries have never been answered satisfactorily. A whole science, called *geology*, is devoted to the study of the earth, and to a solution of the interesting problems to which that study gives rise. Even the best-informed geologists disagree as to how the earth came into existence, but many of them still favor what has long been known as the *nebular hypothesis*. This theory of the origin of the earth is explained by a great Scottish geologist, Sir Archibald Geikie, in the following language:

is lost in the dim light of remote ages.

As the primitive stages of mankind upon the earth and the early progress of every race fade into the obscurities of mythology and archaeology, so the story of the primeval condition of our globe is lost in the dim light of remote ages, regarding which almost all that is known or can be surmised is furnished by the calculations and speculations of the astronomer.

If the earth's history could only be traced out from evidence supplied by the planet itself, it could be followed no further back than the oldest portions of the earth now accessible to us. Yet there

[1] From Archibald Geikie, *Geology*. The Macmillan Co., New York, 1900; pp. 227–228.

can be no doubt that the planet must have had a long history before the appearance of any of the solid portions now to be seen. That such was the case is made almost certain by the traces of a gradual evolution or development which astronomers have been led to recognize among the heavenly bodies. Our earth being only one of a number of planets revolving round the sun, the earliest stages of its separate existence must be studied in reference to the whole planetary system of which it forms a part. Thus, in compiling the earliest chapter of the history of the earth, the geologist turns for evidence to the researches of the astronomer among stars and nebulae.

The nebular hypothesis,

In recent years, more precise methods of inquiry, and, in particular, the application of the spectroscope to the study of the stars, have gone far to confirm the speculation known as the nebular hypothesis. According to this view, the orderly related series of heavenly bodies, which we call the solar system, existed at one time, enormously remote from the present, as a nebula — that is, a cloudy mass of matter, like one of those nebulous, faintly luminous clouds which can be seen in the heavens. This nebula probably extended at least as far as the outermost planetary member of the system is now removed from the sun. It may have consisted entirely of incandescent gases or vapours, or of clouds of stones in rapid movement, like the stones that from time to time fall through our atmosphere as meteorites, and reach the surface of the earth. . . .

and the supposed evolution of the planets

At all events, the materials of the nebula began to condense, and in so doing threw off, or left behind, successive rings . . . which, in obedience to the rotation of the parent nebula, began to rotate in one general plane around the gradually shrinking nucleus. As the process of condensation proceeded, these rings broke up, and their fragments rushed together with such force as not improbably to generate heat enough to dissipate them again into vapour. . . .

through a process of condensation.

They eventually condensed into planets, sometimes with a further formation of rings, or with a disruption of these secondary rings, and the consequent formation of moons or satellites round the planets. The outer planets would thus be the oldest, and, on the whole, the coolest and least dense. Toward the center of the nebula the heaviest elements might be expected to condense, and there the high temperature would longest continue. The sun is the remaining intensely

hot nucleus of the original nebula, from which heat is still radiated to the furthest part of the system. When a planetary ring broke up, and by the heat thereby generated was probably reduced to the state of vapor, its materials, as they cooled, would tend to arrange themselves in accordance with their respective densities, the heaviest in the center, and the lightest outside.

Conclusion.

In process of time, as cooling and contraction advanced, the outer layers might grow quite cold, while the inner nucleus of the planet might still be intensely hot. Such, in brief, is the well-known nebular hypothesis.

2. The significance of natural power[1]

Some common phenomena which are of importance to man.

Every one is familiar with such common phenomena as running water, winds and storms, the falling of rain, and changes in temperature. These phenomena are manifestations of natural power. Natural power is of vital significance to every one of us, for, as we shall see later in this book, it is closely bound up with the present-day problem of getting a living. It is well, therefore, that we appreciate something of the significance of natural power. Some of the more common ways in which natural power manifests itself are described by the noted geologist, James D. Dana, in the following selection:

The work of the winds

Winds, or moving air, carry sands from one plane to another, and wherever the earth's surface is one of dry sand, and the winds blow strongest and longest in one direction, great accumulations of sand are made. . . . A heavy storm — perhaps aided by heavy waves at high tide — often carries away part of a hill. Then the winds build it up anew, putting the successive drifts . . . over the new surface, differing much from the first in its slopes. . . . Sands carried by winds over rocks often wear the surfaces deeply, as noticed in the Colorado desert, in the Grand Traverse region near Lake Michigan, and elsewhere. This agency has scoured out gorges, shaped and undermined bluffs, and worn away rocks, in the dry parts of the Rocky Mountain region. . . .

Running water is at work universally over a continent wherever there is a slope to produce movement, and the clouds yield rain; . . .

[1] From James D. Dana, *The Geological Story Briefly Told*. American Book Co., New York, 1875; pp. 44–47, 57, 63–64.

What running water can do.

The waters of the rains, mist, and dew about the mountain tops descend in drops and rills, and then gather into plunging streamlets and torrents; the many torrents combine below into larger streams; and these, from over a wide region, unite to make the great rivers. . . . The more rapid the flow of the water the coarser the detritus it can transport; and as a stream slackens its rate the coarser material falls to the bottom, leaving only the finer to be carried on. Thus the large stones and then the smaller will drop as the torrent becomes less and less violent; but the earth and gravel may be borne on to the rivers; and these, in their times of flood, may carry a large part of the burden of the earth to the ocean. Under such a rough-and-tumble movement stones are worn to earth and gravel, and in this pulverized state they may continue the journey seaward. A single heavy rain-storm has sometimes so filled the narrow gorges of a mountain that vast deluges of water, rocks, gravel, and trees have swept down, carrying away houses and spreading desolation over the plains below. . . .

The work of ice.

When water freezes it expands. If it freezes in a pitcher, the expansion is pretty sure to break the pitcher. If it freezes in the crevice of a rock, it opens the crevice; and by repeating the process winter after winter in the colder countries of the globe, it pries off and breaks apart rocks, and makes often a slope of broken blocks . . . at the foot of a cliff. By opening cracks in this way it gives air and moisture new chances to do their quiet work of destruction. . . . When water freezes over a river it often envelopes stones along the shore; and then, whenever there is a breaking up, the ice with its load of stones is often floated off down stream; or if the water of a stream or lake rises in consequence of a flood, the stones may be carried farther up the shore and dropped ashore. . . .

The effects of alternate heating and cooling.

Owing to the alternation each day of sunlight and darkness, the surfaces of exposed rocks experience an alternate expansion and contraction. This cause, which is sufficient to break the solder of soldered metallic roofs on houses, to loosen the cemented blocks of a stone wall, and to give a perceptible movement to high stone towers, tends to start off the grains, and sometimes separates an outer layer from bare rocks, especially when the surface is weathered. As it is in action over the whole surface of the earth, it is an important ad-

dition, in a quiet way, to the chemical work of air and moisture, in the making of earth or gravel for the formation of rock deposits; and it has been so ever since the sun first shone upon bare rocks. A foot or two of soil is a protection against this method of degradation.

Heat gaining access to rocks beneath a region expands them and causes an elevation of the surface; and loss of heat produces a reverse effect. Fractures may attend such changes of level, and also light earthquakes. . . .

3. The beginnings of North America[1]

North America the product of natural power.

From the foregoing selection it is evident that natural power expresses itself in a variety of ways, and that it is capable of exerting a profound influence upon our physical environment. And not only are the various forms of natural power even now molding and modifying the land we live in, but the very existence of North America is due to the age-long working of natural power. The geological history of a continent such as North America is not like the well-arranged history of a people, but rather as if we had a volume describing the successive years of American history with the pages torn apart and buried in many different places, some of them so affected by decay as to be illegible, others utterly destroyed. To put this scattered work into a shape which will tell a connected story is the work of the geologist. Some of the general outlines of this story are presented by the American geologist, Professor Nathaniel S. Shaler, in the following selection:

What is now North America was once a series of islands.

Like the other continents, North America consists of a broad fold of the earth's crust, only a part of which rises above the level of the sea. As the Atlantic and Pacific oceans are in their central parts on the average more than fifteen thousand feet deep, this great continental ridge ascends to the height of nearly three miles before it comes above the level of the sea. In a very ancient time, when this uprising fold of the crust first began to break the surface of the waters, it did not appear as we now behold it, in the form of a great united land, but as archipelagoes, or groups of islands of varied size, the greater part of which appeared where now lie the northern parts of

[1] From Nathaniel S. Shaler, *The Story of Our Continent.* Ginn & Co., Boston, 1899; pp. 25–28, 32–35.

the continent. . . . Those who have studied the matter most carefully are of the opinion that this earliest traceable beginning of the continent took place more than a hundred million years ago. . . .

The North American land mass in late Archaean and early Cambrian times.

At the close of the Archaean time, and in the beginning of the ages commonly known as the Cambrian, we have a clearer idea as to the conditions of land and sea and the life the latter bore in this part of the world. The emerged parts of North America at this time seem to have consisted of one or more large islands in the northeastern part of the continent arranged in somewhat wedge-shaped form like a V, occupying the part of the continent where now lies Labrador and Canada as far south as near the St. Lawrence River, the region immediately north of Lake Superior, and east of Hudson's Sea. That great field of inland waters was then, as now, below the ocean level.

The continent begins to take shape.

With the elevation of this great island or archipelago above the sea, the northeastern part of the continent probably assumed something of its present shape. On the western and southern sides, however, the greater portion of its surface still lay below the level of the sea. Nevertheless, on the lines where now lie the Rocky Mountains of the west and the Appalachians of the east, lines of islands, some of them probably as large as Great Britain, indicated where these great mountain systems had already begun to grow and had elevated a portion of the rising continent above the level of the sea. Although the continent was as yet very incomplete in its outlines, the plan upon which it was to be built was at least in a general way determined. . . .

Continued growth of the continent.

From the close of the Silurian through the Devonian, and down to the beginning of the time when the coal-measures were deposited, the growth of the continent was steadily advancing. The original islands were rising higher from the sea, and extending their shores so as to win more of the shallow bottom to dry land. The vast region of ocean, already in part walled in by the great Canadian or Laurentian islands and those of the Appalachians and Rocky Mountain system, though its floor was subjected to various irregular movements, gradually became more shallow. . . .

During all these earlier ages of the continent, from the close of the Cambrian to the beginning of the coal-measures, the Mississippi

Sea, as we may term the great field of waters now occupied by the valley of that river, swept up from the southward. This was doubtless the same great tide of waters from the tropics, to which we give the name of the Gulf Stream, because it flows through the Gulf of Mexico, the diminished remnant of the ancient Mississippi Sea. . . .

Islands and archipelagoes united in one great land.

When the Carboniferous period began, a great extent of sea-floors, which with the uprising of the continent through the earlier ages were gradually coming nearer to the surface of the water, finally arose above the sea, so that the several ancient islands and archipelagoes, which had in a way prefigured the form of the continent, were at length united in one great land. From this time, indeed, we may fairly date the beginning of the continental history of this country. It seems likely that this continent of the coal-measures was at least in some of the ages of that enduring time almost, if not quite, as extensive as it is at the present day. Its general shape, also, was probably much the same then as now. On the northeastern shore it probably extended somewhat farther into the Atlantic; and on the south what is now the Gulf of Mexico probably covered the area now occupied by the whole of Florida, Mississippi, and Louisiana, as well as a part of Virginia, the Carolinas, Georgia, Alabama, and Texas. It is also probable that the Pacific then occupied a considerable portion of the country east of the Rocky Mountains, from Mexico to the high north. It is possible, indeed, that nearly all the Rocky Mountain country was at this time below the level of the sea, and thus the continent, as a whole, lay somewhat to the eastward of its present position. . . .

4. The formation of ore deposits[1]

Two characteristics of natural power, and their importance to us.

An important characteristic of natural power is that it tends to express itself continuously, rather than intermittently. Another characteristic of natural power is that it works blindly and without regard to man. These two characteristics are of profound importance to us. In the first place, natural power has been doing things since the beginning of time and will continue its work until the end of time. In the second place, the fact that natural power works without re-

[1] From Ralph S. Tarr, *Economic Geology of the United States*. The Macmillan Co., New York, 1898; pp. 73–74, 81–83.

gard to us means that our ability to profit from natural power will depend upon our capacity to utilize its products and to control the conditions under which it shall express itself. Fortunately, the age-long working of natural forces has produced in our country many things which can be used to satisfy our wants. In the following selection the well-known geologist, Professor Ralph S. Tarr, explains the origin of the ore deposits so important in industrial development:

The work of water in concentrating deposits of metals.

Metals are disseminated through all rocks, being much more prevalent in some than in others, but generally being in such small quantities that only very careful analyses serve to prove their presence. In order to bring these metals into concentrated form, some agent is necessary to act as a carrier, and this agent is usually the ever-present water. All rocks contain water. In the quarry, it is shown by the loss of weight when the quarried block is exposed to the dry air; in the volcano, its presence is proved by the clouds of steam which rise from the lava stream, and the vesicles and cavities which it causes in the lava by its expansion. This water was partly built into the rocks when they were formed; but partly, probably chiefly, it comes from the surface. During every rain, a part of the fall flows off as surface water; a considerable portion creeps through the soil and reappears in springs; but a small portion starts on an underground journey, during which it often penetrates to great depths, traverses hard and soft rocks alike, and is ever present as interstitial water in the microscopic crevices in the rocks.

The solvent power of water.

Cold water, free from impurities, has little solvent power except for the most soluble minerals, such as salt, gypsum, or calcite; but very little of the underground water is pure. As it passes through the soil and the surface coating of vegetable matter, certain acids and gases are absorbed. These give to the water an increased solvent power, and as it descends it may eventually become so strongly acid, or so alkaline, that even the most insoluble substances are taken into solution. The temperature of the earth progressively increases as the depth is increased, and hence water at considerable depths attains a temperature often high above the boiling-point, so that its power as a solvent is vastly increased. . . .

When a rock containing metals is disintegrated by weathering, the products of disintegration go off, partly in solution, partly as

mechanical sediment. It is chiefly in this manner that disseminated deposits become introduced into sedimentary rocks. . . . Gold . . . is disseminated through certain rocks, but in such small quantities that by their mere decay, without the assorting action of water, it would hardly be accumulated. Given, however, a rapid stream, the lighter minerals are carried off, while the heavy gold accumulates in pockets where the currents are less rapid. . . .

The mechanical deposit of ore illustrated.

[Other ore deposits] are formed by precipitation from solution, at the surface, when the liquid which carries the minerals loses its power to hold them, either as the result of the loss of some of its properties, or by the accession of some substance which causes a precipitation. The simplest illustration of this class of mineral deposits is that of bog iron ore, where water which has carried in solution [a compound] of iron, obtained from the soil or the rocks, is, in the presence of certain vegetable acids, unable to maintain the solution, and the ore is precipitated frequently in a bog. Moderately extensive beds of impure iron are thus sometimes formed, and, being buried beneath other strata, become truly bedded deposits. Practically the same class of deposit is formed about an iron spring, where the iron-bearing water, rising from the earth to the surface, loses some of its gases, and hence some of its power as a solvent, and is forced to deposit the iron about the spring. . . .

Chemical deposit illustrated by the case of iron.

5. The Ice Age in North America[1]

The Great Ice Sheet

One of the most romantic chapters in all the physical history of North America is that which tells the story of the Great Ice Sheet. By a study of rocks, soils and other elements in earth history, geologists have discovered that there was a time when the northern part of our continent was covered by a great ice sheet. This ice sheet exerted a profound influence upon the geography of the country, and although the land has been free of the glacier for a very long period, the effects of this glaciation are still traceable. The following passages from a text-book on physiography indicate something of the effects of the glacier upon North America:

As the ice sheet moved down from the north, it invaded a region

[1] From Albert L. Arev and others, *Physiography*. D. C. Heath & Co., Boston, 1911; pp. 342–348.

and its effects upon the land.

probably about as maturely dissected as Kentucky and Tennessee now are. River systems were widely branching, and lakes had disappeared. When with change of climate the ice sheet began to melt back, a land surface wholly changed was revealed. Ridges were planed down, and valleys partially or wholly filled. Wherever the ice sheet paused for a time in its retreat, there was formed a terminal moraine. . . . The ice sheet did not advance and recede equally along its entire front, and records of various advances and retreats remain. Many terminal moraines or halting-places, roughly parallel, are found between the Ohio River and the Great Lakes. . . . The general name for all deposits left by the ice is *drift*. . . .

Changes effected in drainage.

From the time of the advance of the ice sheet south from the present position of the Great Lakes . . . until its retreat north of them, all drainage was southward to the Gulf or eastward to the Atlantic. The Great Lakes themselves developed outlets southward to the Mississippi when first freed from the ice. With the retreat of the ice-front northward from the divide between the Hudson Bay and Gulf of Mexico drainage basins, a great lake formed, which developed an outlet now occupied by the Red River of the North. With the melting of the ice dam this lake disappeared, and its silt covered bed is now one of the greatest wheat producing regions in North America. . . .

Effects upon the soil.

With the melting of the glacial sheet all rivers issuing from its front were swollen beyond their usual volume, and beyond the capacity of their ordinary channels. The burden of rock flour carried by these rivers was thus spread along their banks as natural levees forming a peculiarly fine and even-textured deposit known as *loess*. Great thicknesses of *loess* are found along the Missouri River at and below Kansas City, and along the Mississippi southward as far as Baton Rouge. That it was deposited at least in part by the rivers is indicated by the occurrence in it at Vicksburg and elsewhere of numerous snail shells; also by its gradual thinning and final disappearance in a few miles back from the river front. . . .

Effects of the glacier upon surface irregularities,

The presence of the drift in the northern section of our country has played an important part in determining the lines of its economic development. The general result of the deposit of the drift was to leave this region more nearly level than before the coming of the

glacier. This has favored the building of roads and railroads in the section, which in turn promoted commerce.

the flow of rivers,

A deeper covering of mantle rock is found in the glaciated than in the unglaciated regions, and this favors the more even and constant flow of rivers. The numerous lakes here also equalize the flow of streams, and transportation by water is made possible. River transportation in the South is both local and limited; whereas in the North our lakes, our rivers, and our canals make carriage by water second in importance to carriage by rail.

and mining.

Mining in the drift-covered section is of little importance, since the thick coat of drift has made the discovery of important mineral deposits difficult. With the exception of oil, gas, and salt, important mineral deposits have been discovered and developed only where the drift covering is thin or where streams have cut deep valleys.

The soils of the two sections are very unlike, but it is difficult to determine whether the drift has furnished a better or poorer soil than would have developed from the bed rock beneath. In the eastern part of the drift-covered section the soils are too coarse and sandy, and the surface is cumbered with glacial bowlders; but farther west the soils are fine textured, free from bowlders, and very productive. It is probable, however, that the difference in character of crop raised in the two sections is more a difference due to climate than to difference of soil. . . .

6. The relation of climate to civilization[1]

Where is the ideal climate for man's work?

Minerals, forests, waterways, and soils, all these are very important in the industrial development of a country. But even though liberally endowed with these natural resources, a high industrial civilization can never arise in a region which does not possess a climate favorable to an energetic life. Man's health and energy depend on climate and weather more than on any other single factor, and it is admitted that much of the contrast between the energetic people of the temperate zones and the lazy inhabitants of the tropics is due to climate. The question as to what sections of North America and other continents are possessed of an ideal climate for man's

[1] From Ellsworth Huntington and S. W. Cushing, *Principles of Human Geography*. John Wiley & Sons, New York, 1921; pp. 254–257.

work is discussed by the American geographers, Professors Huntington and Cushing, in the following selection:

Three characteristics of a good climate,

We are now ready to ask ourselves what parts of the world have the best climate. Remember that the best climate has three chief characteristics: (1) It must have cool but not cold winters, as a mental stimulus, and warm, but not hot summers as a physical stimulus. (2) It must have a fairly high humidity except in warm weather. (3) It must have frequent changes of weather.

and the extent to which they are found in Europe and the United States.

No region on earth fully satisfies all three of these requirements. Southeastern England and the neighboring parts of continental Europe come nearest to the ideal. . . . Farther east, in Germany, the conditions are much like those of the southern New England States and New York except that changes are not quite so numerous nor so extreme. The northern United States east of the Rocky Mountains is almost ideal in its number of storms and its humidity, but its winters are too cold and its summers often too hot. The western coast of the United States, on the contrary, is almost ideal as to temperature and has a favorable degree of humidity most of the time. It does not have enough storms, and hence is too monotonous. . . .

How climate influences character.

Energy has an important relation to character. Where the climate is stimulating it is easy for people to be industrious. When they get up in the morning they often feel so much like work that they are eager to begin before the proper time. Such people are likely to be inventive or to make improvements and carry out reforms. They do not necessarily have more ideas than others, but their energy makes it possible to put the ideas into practice. In an invigorating climate it is also easier to be honest and sober and self-controlled than in a more enervating one. It is much easier to speak the truth or to control one's temper when one feels strong than when one feels weak.

A caution.

People who live in good climates are apt to look down upon those who live in poorer climates. That is a great mistake. . . . Because a person happens to be born in an unfavorable climate he is not necessarily incapable or less high minded than those born where the climate is more stimulating. In fact when a man who lives in an unfavorable climate such as that of Venezuela distinguishes himself he deserves greater credit than does an equally distinguished man from a more

favored region such as Louisiana, and much more than one who lives in a highly stimulating region like Ohio. The Venezuelan has to draw upon his own will power for much of his energy, while the man from Ohio receives his from a stimulating climate. Thus our Southern States deserve more credit for their achievements than do the Northern States.

Climate and civilization.

Climatic energy has much to do with the advance of civilization. [If we were to plot the distribution of civilization on one map, and the distribution of a stimulating climate on a second map, we should see a close correspondence between the areas which have produced a high civilization and the areas possessed of a stimulating climate. The areas possessed of both a high civilization and a favorable climate] embrace most of the United States and southern Canada, most of Europe, Japan, southeastern Australia, and a portion of South America. The agreement between regions of stimulating climate and high civilization means that the health and energy imparted by such a climate are among the conditions necessary for progress. . . .

Questions on the foregoing Readings

1. What is the subject matter of the science of geology?
2. Why do geologists believe that the earth must have had a long history before the appearance of any of the solid portions now to be seen?
3. What is the nebular hypothesis?
4. Explain the origin of the earth according to this hypothesis.
5. Name some common phenomena which are manifestations of natural power.
6. Describe the work of the winds.
7. Describe the ways in which running water influences our physical environment.
8. How may ice affect our physical environment?
9. Discuss the relation of heat to the formation of rock deposits.
10. To what sort of a book may the geological history of a continent like North America be confined?
11. When, according to Professor Shaler, did the earliest traceable beginnings of the North American continent take place?
12. What parts of North America had been formed in late Archaean and early Cambrian times?
13. Discuss the growth of the continent from the close of the Silurian through the Devonian period.
14. Describe the shape of the continent in the Carboniferous period.

15. Name two important characteristics of natural power.
16. Explain the work of water in concentrating ore deposits.
17. Illustrate the mechanical accumulation of ore.
18. How may iron deposits originate?
19. What has been the effect of the ice age in North America upon drainage? upon surface irregularities?
20. What effect has the glacier had upon mining?
21. Why is this?
22. What is the relation of climate to health?
23. Name the three characteristics of a good climate.
24. To what extent are these characteristics found in Europe and the United States?
25. Discuss the relation of climate to civilization.

CHAPTER II

HOW THE INDIAN GOT A LIVING

7. The origin of the American Indian[1]

Significance of the peopling of North America.

In the preceding chapter we sketched the physical background of American industry. Natural power, working through the long ages of geological history, formed the continent of North America and endowed it with the ores, forests, soils, and other resources so important to industry. But these resources contributed nothing to civilization until man came into contact with them. Of great interest, therefore, is the peopling of North America. The first human beings in America were probably the ancestors of the present-day American Indians. The manner in which the Indian probably entered North America is described by an American anthropologist, Clark Wissler, in the following passage:

Affinity between the American Indian and the Mongoloid peoples of Asia.

Our review of the New World . . . revealed the essential unity of the Indian population. It is also clear that there are affinities with the Mongoloid peoples of Asia. Hence we are justified in assuming a common ancestral group for the whole Mongoloid-Red stream of humanity. We have already outlined the reasons for assuming the pristine home of this group to be in Asia, but when it comes to locating the precise cradle land of this parent group, we must proceed with caution. This is, however, not of prime importance, for if we start with the known facts, the present distribution of the Mongoloid-Red stem, we note that it concentrates in the colder northern halves of both hemispheres where the cultures of its units are primitive, but that in each case its southern outposts developed complex cultures. . . .

[We may assume] a main horde of the Mongoloid-Red peoples with a culture not materially different from that of the great mass of wilder North Asiatic and American tribes known to history. Like

[1] From Clark Wissler, *The American Indian.* New York, 1917; pp. 361–364.

Distribution and culture of the Mongoloid-Red peoples.

a great crescent this horde stretched from Cape Horn, through Alaska, across Asia and beyond to the shores of the Baltic and the Mediterranean. It appears, in the main, as a virile horde of hunting and fisher folk most at home in cold, elevated, or semi-arid lands. Among other traits, we find the main body characterized by tailored skin clothing, the sinew-backed bow, the snowshoe, the sled, etc. These are all fairly primitive characters; yet, wherever the outposts of this great horde met with favorable uplands they developed agriculture and other complex traits. . . .

The peopling of America.

[In summary we may indulge in] the formulation of an hypothetical statement. The New World received a detachment of early Mongoloid peoples at a time when the main body had barely developed stone polishing. That this was contemporaneous with the appearance of stone polishing in Europe does not necessarily follow, for future research in Asia may show it to have been much earlier.

One or more periods of climatic change followed, cutting off ready communication with the mother-land, and forcing both the Old and New World wings southward. In the former, they came in contact with other differentiated groups from whom they received culture stimuli, but in the New World they had only themselves. Yet in the course of time, the increase of numbers and the development of sub-social groups led to considerable varieties of culture.

Culture traits of America's first human inhabitants.

Some of the probable traits brought from the mother-land are the fire-drill, stone chipping and polishing, twisting of string, the bow, throwing stick, the harpoon, simple basketry and nets, hunting complexes, cooking with stones in vessels of wood, bark or skin, body-painting, and perhaps tattooing, and the domestication of the dog. Some of these may have filtered through Alaska from time to time, but the facts in the case favor the view that in the main they came in with the original inhabitants. Independently, the New World developed agriculture, pottery, the higher types of basketry and cloth weaving, the working of the softer metals and the manufacture of bronze.

8. The Indian's use of natural products[1]

North America began to yield a living to man

North America began to yield a living to man at the moment that the ancestors of the present-day Indians drifted in from Asia. To satisfy his instinct to live, the Indian struggled to provide himself with such necessities as food, shelter and clothing. These and other necessities he procured by making use of natural products. Although he made a less efficient use of Nature than has civilized man, the Indian managed to get a living out of his environment, and to develop an interesting and rather complex culture. Some of the ways in which such primitive peoples as the original Indians probably first learned to utilize natural products are described by an American anthropologist, Alton Howard Thompson, in the following passage:

The importance of the club.

[The club was probably the earliest implement or weapon employed by primitive man.] Nature kindly placed this most effective and typical weapon in the hands of primeval man at the very first and most critical stage of his existence. His survival as a species probably depended more upon his discovery of the club and its use, at this stage of his existence, than upon any other agency. It gave him a new resource and placed the balance of power in his hands. It enabled him to dominate over other animals, and we probably owe our preservation as a species to the discovery of the club and its subsequent modifications. . . .

Evolution of the stick.

Next to the club came the stick for throwing, which would early suggest itself by accidental discovery in the first place, in the first struggles with wild beasts and wilder men. . . . Primitive man would also soon discover the difference between a sharp stick and a blunt one. With a sharp stick he could better pierce animals to kill them and dig in the ground to reach roots and grubs. . . . With still further advancement he hardened the point of the stick in the fire, and later attached to it still harder points of stone or bone. From this simple weapon was developed the spear and the arrow and their relatives. . . . In this category belongs also the sharp thorn, whose piercing powers would soon be discovered and utilized. From this useful implement was later developed the awl, the needle and the pin. . . .

[1] From the *American Antiquarian*, Vol. XXIV, 1902. (A. H. Thompson, "The Cultural Significance of Primitive Implements and Weapons"), pp. 36–41, 43.

The use of stones as implements and weapons.

Stones of various forms and densities were furnished ready to the hand of primitive man, which could be used for pounding or for missiles. With the stone as a hammer he reduced refractory food substances, such as nuts and bones, and thus secured food. . . . The stone also served an important purpose as a missile to throw at enemies or animals for defence or to kill them as food. . . . When man attained the stage of modifying and shaping stones, to make them more effective as implements and weapons, he began to sustain life more easily and even to acquire some luxuries. . . . The stone as a hammer developed great possibilities in the process of its evolution from the mere natural pounding implement. With the birth of inventive and mechanical powers, it was early modified to meet various purposes by chipping and grinding, into many and varied forms, to serve the demands of life. . . . The offices of the pounding stone in cracking nuts, breaking bones, crushing shell fish, etc., quite early revealed new food resources, and thereby extended the possibilities of life and of survival. The possibilities stimulated invention also, and led to the attachment of a handle to a well adapted stone, and thus to other methods of increasing effectiveness. . . .

The evolution of the knife.

Another most important and useful tool and weapon, the knife, was the gift of the mineral kingdom. A flint chip picked up on a hillside where an accidentally broken rock had produced it, was probably the first knife. Another accident disclosed how it could be made, and from thence its evolution was assured. The discovery of the cutting flint was a great boon to primeval man. It opened up a vast field of resources, not only of means of procuring necessities, but for comforts and luxuries as well. He could skin animals to make clothing, cut up flesh for food, and do many other things that were not possible before the discovery of this useful tool. . . .

The secret of man's supremacy over the lower animals and Nature.

And thus it was, that from her varied resources, beneficent Nature presented such things ready made to the hand of [primitive] man, which were most necessary for the maintenance of life in his first struggles for existence. . . . He became adapted to his environment, of course, but without Nature's aids to supplement his changing natural powers, he could not have survived at all. From the tropics to the artic zone, Nature provided in each region that which man seemed to require for the battle of life. She nursed him until he

became her greatest creation, and finally he has become so all-powerful that he has not only conquered all other animals, but has almost conquered Nature herself. For, as Mr. Charles Morris says, "When once primitive man began to add to his natural powers those of surrounding Nature by the use of artificial weapons, the first step in a new and illimitable range of evolution was taken. From that day to this man has been occupied in unfolding this method and has advanced enormously beyond his primal state. A crude and simple use of weapons gave him in time supremacy over the lower animals. An advanced use of tools and weapons has given him, in a measure, supremacy over Nature herself."

9. The beginnings of invention[1]

The Indian improved his living by the use of traps.

The foregoing selection describes the manner in which savage peoples may have discovered the use and possibilities of tools and weapons. Many of the tools and weapons of the American Indian were crude affairs which were little more than objects which he had found and worked over very slightly. But other devices of the Indian show a distinct inventive ability, and indicate how even savage peoples may improve their living by the cunning arrangement of materials furnished by Nature. Civilized man has contrived complex machines for the sake of getting a good living; the Indian was ignorant of machinery, but managed to add markedly to his food supply by means of cleverly-devised traps. In the following selection some of the traps of the American Indian are described by an American anthropologist, Otis T. Mason:

Cage-traps.

The majority of cage-traps have funnel-shaped entrances, into which the animal passes easily and unrestrained, but exit is prevented by means of a pointed strip of wood or other substance acting as a ratchet; or, in the case of nets, the small end of the funnel consists of a series of string gates, which the animal passes, and these close the mouth of the net so as to prevent escape. Among the Eskimo a unique contrivance for catching foxes was a net which was made to be set around a burrow. Stakes were driven into the snow to support the net, which was about five feet high; in the corners were long pockets, opening wide into the net but gradually con-

Catching foxes.

[1] From Otis T. Mason, *Traps of the Amerinds*, Washington, 1902, Pamphlet.

tracting until the fox could go no farther; endeavoring to turn back, it became hopelessly entangled and died of fright and cold. . . .

Catching birds and animals by means of a noose.

[The principle of the noose is that a string or thong has one end looped around itself so as to slip with perfect ease, while the other end is fastened to some object.] This noose may be so placed that the animal will run its head or its foot into it and be caught; or it may be attached to a bent sapling or some form of spring which is held down by a device, to be liberated by the animal coming to seize the bait or lure. [The Eskimo often places a noose] across the water to catch the diving and swimming birds. Hares, ermines, and lemmings are also taken in whalebone snares. . . . In the Mackenzie River country . . . even reindeer and moose are strangled by means or snares set in their way. . . .

Killing bears by means of a deadfall.

The simplest form of killing trap is the fall, or deadfall, in which a heavy weight drops suddenly upon the animal. . . . Maximilian figures a deadfall used for bears in Pennsylvania. The animal walks between two logs; above are two logs fastened firmly together; these are held up by a crossbar supported between two sticks; a lever attached to the logs passes over the crossbar and is held down at either end in a ratchet, where there is a bait. The bear crouches between the logs, pulls the trigger, and releases the lever, which flies up and lets the ring that supports the fall slip off; then comes the tragedy. . . .

Use of the point-trap.

Point-traps of the highest order were not common in America; that is, the use of the arbalist or bow for the purpose of driving an arrow or bolt into the victim or for impaling . . . but the throwing in the way of carnivorous animals of sharpened whalebone splinters wrapped in fat was practiced. Bancroft mentions a bear trap, used by the Aleuts, consisting of a board two feet square and two inches thick, furnished with barbed spikes, which was placed in bruin's path and covered with dust. The unsuspecting victim stepped upon the smooth surface, when his foot sank and was pierced by one of the barbed hooks. Maddened with pain, he put forth another foot to assist in pulling the first away, when that, too, was caught. When all four of the feet were spiked to the board, the beast fell over on its back and its career was soon ended by the hunter. . . . Lumholtz says that [some of the Indians of northern Mexico] catch deer by

putting sharpened sticks in the track and stampeding the animals with dogs.

The knife or cutting trap.

There were in America two forms of knife or cutting traps of the most ingenious character. One may be called the wolf-knife. A sharpened blade was inclosed in a frozen mass of fat, and stuck up in a block of ice; the wolf, licking the fat, cut its tongue; the taste of the blood infuriated the animal, so that by licking the knife more it caused a larger flow of blood. All the other members of the pack were attracted to the same spot, devouring one another for the sake of the blood, till all were destroyed. Another form of edge-trap is found in Alaska, where the blades are attached to one end of a lever, the other end of which is inclosed in a torsion spring of rawhide. The animal stops to pick the bait, pulls the trigger, and releases the unstable hook-catch; the knives fly over and the victim is brained. . . .

10. Transportation among the Indians[1]

The significance of transportation.

We have seen something of the way in which the Indian improved his control over his environment by the fashioning of tools and weapons, and the contrivance of traps. Let us now inquire into the methods by which he moved from place to place. Transportation is of very great importance to man because it enables him to overcome the obstacle of space. By means of transportation man can flee from danger, leave an unfriendly region and seek a favorable environment, pursue food animals, move raw materials from place to place, and otherwise satisfy his wants. So important is transportation, indeed, that some students have called it one of the chief bases of civilization. To what extent was transportation developed by the American Indian? This question is answered by Clark Wissler in the following selection:

The dog as a means of transportation.

[In the period preceding the discovery of America, the Indians used the dog as a means of transportation. But] notwithstanding that the dog occurs everywhere, its use in transportation is confined to the caribou and bison areas with very narrow fringes in those adjoining. Above the forest line dogs were made to draw sledges, a trait quite characteristic of the Eskimo, but found among the most northern

[1] From Clark Wissler, *The American Indian*. New York, 1917; pp. 34–35, 37, 41, 43.

Indians of Canada as well. . . . In all the wooded parts of the caribou area a toboggan is used, the snow being rather soft for sledges. . . .

The travois.

In the spring and summer dogs were made to bear packs and drag tent poles. This method was more widely distributed than the use of sledges and toboggans, covering the entire caribou and bison areas and extending somewhat into the inland portion of the salmon area. In the bison area, particularly in the northern part, we find an original contrivance known to us as a travois. Though of two or three varieties, the essential structure is the same throughout — a V-shaped frame with an intervening section of net or wood upon which the load is placed. The structure suggests that this travois is merely a development of the pack and trailing tent poles. . . .

The prevailing mode of land transport.

[But] the prevailing mode of land transport in the New World was by human carrier. The wheel was unknown in pre-Columbian times. The wild fauna afforded nothing like the horse and ox of the Old World. The caribou has been found far less suitable for domestication than the closely allied reindeer, and the bison has proved itself rather too strenuous. Yet, these are not sufficient excuses. The plain fact is that the tribes in contact with these animals were relatively primitive. . . .

Indian boats and canoes,

[With reference to water transportation,] boats were in use wherever advantageous, and from this point of view may be considered universal. Boats were made according to the materials at hand. In regions of large trees the dug-out was preferred, but in the far North, the extreme South, and parts of the Amazon country and the lake region of North America, we find frame boats covered with skins or bark. The crudest are the bark boats of the Fuegians; the finest are the birch-bark canoes of the Ojibway and the kayaks of the Eskimo. From Central California to Chile we have occasional occurrences of the balsa type, a raft-like structure of reeds.

and the methods by which they were propelled.

If we except the Eskimo, row-locks were not used, the method of propulsion for small boats being to paddle first on one side and then on the other. The double paddle is found only among the Eskimo. Even the great dug-outs of the North Pacific Coast were propelled by paddles. The use of sails is somewhat in doubt, but it is asserted that the Spaniards found them in Peru with balsas large enough to carry fifty men. Sails are used on the North Pacific Coast, but whether

known before the era of Russian trade is not clear. The Eskimo use both the row-lock and sails, but as these occur on the Siberian coast, they are most likely intrusive. . . .

The only boat with hull built up of planks was that of the now extinct Santa Barbara of California. Another unique form was the circular tub-like boat with a skin-covered frame, used to ford rivers in the widely separated bison and guanaco areas, and one on the lower Colorado River made of basketry. . . .

11. The nature of the Indian's living[1]

The problem of estimating the extent to which a people is getting a good living.

The most fundamental aim of the Indian's varied activities was to get a living. The fashioning of tools and implements, the contriving of traps, and the development of means of transportation, all of these activities were closely bound up with his instinct to sustain life. Really to know whether or not a people is succeeding in getting a good living we should have to investigate the entire culture of the group; on the other hand, such basic activities as food-getting, or clothing-manufacture, or house-building are important standards for estimating the general economic status of a people. Something of the nature of the Indian's living may be indicated, therefore, by the following extract from the *Handbook of American Indians*, describing the sources of the Indian's food supply:

Indian diet.

The areas occupied by the Indians may be classed as supplying, predominantly, animal food, vegetal food, and mixed diet. No strict lines separate these classes, so that in regions where it is commonly said that the tribes are meat eaters exclusively, vegetal food is also of importance, and vice versa. . . .

Animals as a source of food.

Animal food was obtained from the game of the environment, and the settlement and movements of some tribes depended largely on the location or range of animals, such as the buffalo, capable of furnishing an adequate food supply; while on the other hand, the limit of habitat of water animals, as the salmon, tended to restrict the range of other tribes to the places where the supply could be gathered. No pure hunter stage can be found . . . for while the capture of animals devolved on the man and the preparation of food on the woman,

[1] From the *Handbook of American Indians*. Washington, 1907, Vol. I, pp. 466–467.

the latter added to the diet substances derived from the vegetal kingdom. Similarly no purely agricultural stage with exclusively vegetal diet existed, and no aboriginal domestication of animals north of Mexico is found except in the case of the turkey and the dog.

Proportion of animal and vegetal food.

In general, in the northern portion of the continent the diet was three-fourths animal food; in the southern part it was three-fourths vegetal; while with the tribes of the coast, mountains, lakes, and plains, it varied according to the food supply. . . . The food supply also changed with the seasons, causing the diet at different periods of the year to vary in its ratio of animal to vegetal constituents. . . .

Miserable condition of some of the Indians of Texas and California.

In inhospitable regions, such as that inland from the Texas coast in the sixteenth century, the natives subsisted on whatsoever they could find. Cabeza de Vaca wrote of the Yguazas: "Their support is principally roots, which require roasting two days; many are very bitter. Occasionally they take deer, and at times take fish; but the quantity is so small and the famine so great, that they eat spiders and the eggs of ants, worms, lizards, salamanders, snakes, and vipers that kill whom they strike; and they eat earth and wood . . . and I honestly believe that were there stones in that land they would eat them. They save the bones of the fishes they consume, of snakes, and other animals, that they may afterward beat them together and eat the powder." Almost as much may be said of the Maidu of California who, in addition to consuming every edible vegetal product, ate badgers, skunks, wildcats, and mountain lions; practically all birds except the buzzard; yellowjacket larvae, grasshoppers, locusts, and crickets, and even salmon bones and deer vertebrae.

Cultivated

Vegetal food comprised a vast array of the products of plant life, of which roots and seeds were the most valuable. The most important food plant possessed by the Indians was maize, which formed and still forms their principal subsistence. Following maize in order of importance came beans, peas, potatoes, squashes, pumpkins, melons and chile, which were grown in variety.

and uncultivated plants.

Uncultivated plants also entered into the dietary, as seeds, roots, and flowers of grasses and other plants, or parts of plants used as greens, for flavoring, etc. In numberless cases wild plants have preserved tribes from starvation when cultivated crops failed. In the Southwest, cactus and yucca fruits, mesquite beans, and the agave

were most important elements of the food supply. . . . The North Pacific tribes made much use of the sweet inner bark of the hemlock and spruce. . . . Throughout New England and southeastern Canada sugar was produced by the evaporation of maple sap; in the Southwest it was derived from the willow and the agave. . . .

The Indians generally preferred cooked to uncooked food.

Contrary to popular belief the Indians, as a rule, preferred cooked food. The Eskimo, whose name signifies 'eaters of raw flesh,' ate uncooked meat only when absence of fuel prohibited cooking, or as a side dish. Vegetal food especially requires the agency of fire to render it fit for human digestion, whereas animal food may be consumed in a raw state, certain parts, as the liver, often being eaten in this way. All the edible portions of the animal were put to use, and in many cases both animal and vegetal substances advanced toward putrefaction were preferred. . . .

12. Indian culture: A summary[1]

The relation of Indian culture to environment.

From the foregoing selection it is clear that the Indian derived his food from a number of sources, and that differences in environment were closely related to the variations in the amount and quality of the food supply. There is a similarly close relation between environment and other phases of Indian culture, for which reason it is unwise to make sweeping statements as to Indian culture in general. Indeed, the close student of Indian culture will recognize that the Indian was largely subject to environmental restrictions, and will interpret the culture of a particular group accordingly. The dependence of the American Indian upon the character of his environment is shown by the following summary from the *Handbook of American Indians:*

Environment and Indian culture in the Arctic,

Arctic. — The characteristics of this environment are an intensely cold climate; about six months day and six months night; predominance of ice and snow; . . . good stone for lamps and tools; driftwood, but no timber and little fruit; polar bear, blue fox, aquatic mammals in profusion, migratory birds, and fish, supplying food, clothing, fire, light, and other wants in the exacting climate. . . .

[1] From the *Handbook of American Indians,* Washington, 1907. Vol. I, pp. 427–429.

along the Atlantic slope,

Atlantic Slope. — Minerals for tools and weapons were present in great variety, and ochers, clays, and some copper were found. Plant life was varied and abundant. Forests of hard wood, birch, elm, maple, and evergreens furnished materials for supplying a great diversity of wants. From the soft wood were made dug-out canoes. The dense forest growth rendered foot traveling irksome. . . . The wide range of latitude necessitated different dwellings for different climates, as the bark tipi, the mat house, and the arbor house. For clothing, garments of hide, rabbit skin and feathers were used. Stone was abundant for making tools, for flaking or grinding, but neither materials nor motives for artistic work of a high order were present. . . .

in the Mississippi Valley,

Mississippi Valley. — [The characteristics of this area] in relation to Indian life were varied climate, abundant rainfall, numerous waterways, fertile lands, alternate timber and prairie, and minerals in great variety and abundance, including clay for pottery. . . . The fertile land was favorable to the cultivation of maize and squashes. . . . This environment developed hunting and agricultural tribes. . . .

in the Plains,

Plains. — This environment lies between the Rocky Mountains and the fertile lands west of the Mississippi. . . Dependence on the buffalo and herbivorous animals associated with it compelled a meat diet, skin clothing and dwellings, a roving life, and industrial arts, depending on the flesh, bones, hair, sinew, hide, and horns of those animals. . . . Travel was on foot, with or without snowshoes, and transportation was effected by the aid of the dog and travois. . . . The social order and habit of semi-nomadic wandering about fixed centers were the direct result of the surroundings and discouraged agriculture or much pottery. . . .

along the North Pacific Coast,

North Pacific Coast. — [This area] has a moist, temperate climate, a mountainous coast, with extensive island groups and landlocked waters favorable to canoe travel. . . . The material resources are black slate for carving and good stone for pecking, grinding, and sawing; immense forests of cedar, spruce, and other evergreen trees for houses, canoes, totem-posts, and basketry. . . . This environment induced a diet of fish, mixed with berries, clothing of bark and hair, large communal dwellings, exquisite twined and checkered basketry

to the discouragement of pottery, carving in wood and stone, and unfettered travel in dug-out canoes. . . .

in the Interior Basin,

Interior Basin. — This is embraced between the Rocky Mountains and the Sierras of the United States. . . . Good stone for various crafts is present. Timber is scarce, but wild seeds are abundant for food, and excellent woods and roots for basketry. Animals available were buffalo, rabbit, deer, antelope, wolf, mountain sheep, and birds, but fish were scarce. The environment made necessary the brush shelter and the cave dwelling. Little pottery was made, but the sinew-backed bow was developed. Traveling was necessarily done on foot, and carrying effected by dogs and women, as there was no transportation by water. . . .

and in the Southwest.

Pueblo Country. — [In many respects the highest Indian culture north of Mexico centered in Southwestern United States. In physiographic character this area is arid or semi-arid.] There are deep canyons, elevated mesas, narrow fertile valleys, broad stretches of plains, and isolated mountain masses. The climate demands little clothing in the lowlands, but on the plateaus the nights are cold and the summer temperature that of Maine. Rain is irregular and periodic. . . .

Plant life, except after rains, is comparatively meager, the species giving rise to native industries being chiefly cactus, yucca, cottonwood, greasewood, willow. . . . Maize, beans, and cotton were cultivated from a very early period. Wild animals hunted or trapped were the rabbit, deer, bear, turkey, wood-rat, mountain sheep, coyote and wolf. . . . Travel was formerly done on foot only, and goods had to be carried chiefly on the heads and backs of men and women, there being few navigable waters. . . .

Questions on the foregoing Readings

1. What is the significance of the peopling of America?
2. With what peoples do the American Indians show an affinity?
3. Give the essential characteristics of the Mongoloid-Red peoples.
4. Trace, briefly, the entry into North America of the ancestors of the Indians.
5. Enumerate the culture traits which these people probably brought with them.
6. What is the significance of the club?

7. Trace the evolution of the stick as a tool and weapon.
8. How do you explain man's supremacy over the lower animals and Nature?
9. What is the significance of traps among the American Indians?
10. Describe some of the ways in which the Indians trapped birds and animals.
11. Describe the use of the deadfall.
12. Explain the principle of the point-trap.
13. What is the significance of transportation?
14. To what extent was the dog a means of transportation in pre-historic America?
15. What was the prevailing method of land transportation in prehistoric America?
16. Discuss the Indian's use of boats and canoes.
17. What is the importance of knowing the nature of the Indian's food supply?
18. To what extent were animals a source of food to the Indian?
19. Discuss the proportion of vegetal material in the Indian's food supply.
20. To what extent were plants cultivated by the Indians?
21. Which did the Indian generally prefer, cooked or uncooked food?
22. Summarize the relation of environment to Indian culture in the Arctic.
23. Summarize the relation of environment to Indian culture along the Atlantic slope.
24. Contrast environmental conditions in the Mississippi Valley and in the Plains area.
25. Compare environmental conditions in the Interior Basin with environmental conditions in the Southwest.

CHAPTER III

HOW THE COLONIST GOT A LIVING

13. The English settle at Jamestown[1]

The natural resources of North America were little used until the colonization of the continent by Europeans.

If we compare the achievements of the American Indians with those of the civilized white peoples who colonized North America after its discovery by Columbus in 1492, it must be admitted that the Indian's culture was at a relatively low level. From the standpoint of American industrial development, the important point to notice here is that the Indian apparently did not know how to make an effective use of the natural resources of the continent. These resources, the results of centuries of activity on the part of natural power, contributed relatively little to civilization until after the progressive peoples of Europe had taken possession of the New World. A significant event in the history of North America, therefore, was the first successful English settlement in the New World, effected at Jamestown in 1607. The following extracts from the works of Captain John Smith describe the beginning of this settlement:

Jamestown, 1607.

The first landing.

[After a long and anxious voyage the settlers arrived off the shore of Virginia.] The first land they made they called Cape Henry; where thirty of them recreating themselves on shore, were assaulted by five savages, who hurt two of the English very dangerously. . . .

The settlers set to work.

[After the site of a settlement had been chosen, they fall to work.] The Council contrive the fort, the rest cut down trees to make place to pitch their tents; some provide clapboards to relade the ships, some make gardens, some nets, etc. The savages often visited us kindly. . . .

Sickness falls upon them.

[Later it came about that] scarce ten amongst us could either go or well stand, such extreme weakness and sickness oppressed us. And thereat none need marvel, if they consider the cause and reason which was this: While the ships stayed, our allowance was somewhat

[1] From Captain John Smith, *Works*.

bettered, by a daily proportion of biscuit, which the sailors would pilfer to sell, give or exchange with us. . . . [But after the departure of the ships the rations were] half a pint of wheat, and as much barley boiled with water for a man a day, and this having [been long] in the ship's hold contained as many worms as grains; so that we might truly call it rather so much bran than corn, our drink was water, our lodgings castles in the air. With this lodging and diet, our extreme toil in bearing and planting palisades, so strained and bruised us, and our continual labor in the extremity of the heat had so weakened us, as were cause sufficient to have made us miserable in our native country, or any other place in the world.

Hunger relieved through the generosity of the Indians.

From May to September, 1607, those that escaped lived upon sturgeon and sea crabs. Fifty [men] in this time we buried . . . now was all our provision spent, the sturgeon gone, all helps abandoned, each hour expecting the fury of the savages; when God, the patron of all good endeavors, in that desperate extremity so changed the hearts of the savages, that they brought such plenty of their fruits and provision as no man wanted. . . .

The influence of Captain John Smith.

The new President [Ratcliffe,] and Martin, being little beloved, of weak indulgence in dangers, and less industry in peace, committed the managing of all things abroad to Captain Smith; who by his own example, good words and fair promises, set some to mow, others to bind thatch, some to build houses, others to thatch them, himself always bearing the greatest task for his own share, so that in short time, he provided most of them lodgings, neglecting any for himself.

Attempt to trade with the Indians.

This done, [he and some of the others went] in the shallop to search the country for trade. The want of the language, knowledge to manage his boat without sails, the want of sufficient power, apparel for his men, and other necessaries, were infinite impediments, yet no discouragement. Being but six or seven in company he went down the river to Kecoughtan, where at first [the Indians] scorned him as a famished man, and would in derision offer him a handful of corn, [or] a piece of bread, for . . . swords and muskets, and such like proportions also for their apparel. But seeing by trade and courtesy there was nothing to be had, [Smith] made bold to try such conclusions as necessity enforced . . . [and so] let fly his muskets, ran his boat on shore; whereat they all fled into the woods. . . .

[A skirmish between the English and the Indians followed, after which the savages sued for peace.] Smith told them, if only six of them would come unarmed and load his boat, he would not only be their friend, but . . . give them beads, copper, and hatchets besides; which on both sides was to their content performed; and then they brought him venison, turkeys, wild fowl, bread, and what they had, singing and dancing in sign of friendship till they departed. . . .

Provisions secured from the Indians.

14. Nature of colonial agriculture [1]

Despite the sorry beginning at Jamestown, the English persevered and at length the settlement was placed upon a firm foundation. Elsewhere along the Atlantic coast, too, settlements were made, not only by the English, but by the Dutch, the Swedes and other peoples. Everywhere in these communities agriculture was of dominating importance, for under primitive conditions man gets the major part of his living *directly* from Nature. The conditions of colonial agriculture varied with the region and with the type of settler, yet the fundamentals were everywhere the same: the land had to be cleared, the soil broken, a rude shelter provided, tools made or purchased, and seeds sown. Something of the general nature of colonial agriculture may be gained by the following description of what a farmer might expect in New Netherland:

Importance of agriculture in primitive communities.

[Those] who are obliged to work at first in colonies ought to [arrive] in New Netherland early in the spring, in March, or at latest in April, so as to be able to plant, during that summer, garden vegetables, maize and beans, and moreover employ the whole summer in clearing land and building cottages. . . .

Why settlers should arrive in the spring.

All then who arrive in New Netherland must immediately set about preparing the soil so as to be able, if possible, to plant some winter grain, and to proceed the next winter to cut and clear the timber. The trees are usually felled from the stump, cut up and burnt in the field, unless such as are suitable for building, for palisades, posts and rails, which must be prepared during the winter, so as to be set up in the spring on the new made land which is

Preparing the soil

[1] From *The Documentary History of the State of New York.* Edited by E. B. O'Callaghan, Albany, 1851. Vol. I, pp. 30–32.

intended to be sown, in order that the cattle may not in any wise injure the crops.

and planting the crops.

In most lands is found a certain root, called red wortel, which must, before ploughing, be extirpated with a hoe, expressly made for that purpose. This being done in the winter, some plough right around the stumps, should time or circumstances not allow these to be removed; others plant tobacco, maize and beans, at first. The soil even thus becomes very mellow, and they sow winter grain the next fall. From tobacco can be realized some of the expenses incurred in clearing the land. The maize and beans help to support both men and cattle. The farmer having thus begun, must endeavor, every year, to clear as much new land as he possibly can, and sow it with such seed as he considers most suitable.

The question of live stock.

It is not necessary that the husbandman should take up much stock in the beginning, since clearing land and other necessary labor do not permit him to save much hay and to build barns for stabling. One pair of draft horses or a yoke of oxen only is necessary, to ride the planks for buildings, or palisades or rails from the land to the place where they are to be set. The farmer can get all sorts of cattle in the course of the second summer, when he will have more leisure to cut and bring home hay, also to build houses and barns for men and cattle. . . .

The construction of a shelter.

Those in New Netherland, and especially in New England, who have no means to build farmhouses at first according to their wishes, dig a square pit in the ground, cellar fashion, six or seven feet deep, long and as broad as they think proper, case the earth inside all round the wall with timber, which they line with the bark of trees or something else to prevent the caving in of the earth. [They] floor this cellar with plank, and wainscot it overhead for a ceiling, raise a roof of spars clear up, and cover the spars with bark or green sods, so that they can live dry and warm in these houses with their entire families for two, three and four years, it being understood that partitions are run through those cellars which are adapted to the size of the family.

The wealthy and principal men in New England, in the beginning of the colonies, commenced their first dwelling houses in this fashion for two reasons; first, in order not to waste time building and not to want food the next season; secondly, in order not to discourage poorer

laboring people whom they brought over in numbers from [the] fatherland. In the course of three or four years, when the country became adapted to agriculture, they built themselves handsome houses, spending on them several thousands.

Gardens.

After the houses are built in the above described manner, or otherwise according to each person's means and fancy, gardens are made and planted in season with all sorts of pot-herbs, principally parsnips, carrots and cabbage, which bring great plenty into the husbandman's dwelling. The maize can serve as bread for men, and food for cattle.

The dawn of prosperity.

The hogs, after having picked up their food for some months in the wood, are crammed with corn in the fall; when fat they are killed and furnish a very hard and clean pork; a good article for the husbandman who gradually and in time begins to purchase horses and cows with the produce of his grain and the increase of his hogs, and instead of a cellar as aforesaid, builds farmhouses and barns. . . .

15. Making clothing by hand [1]

In colonial times most clothing was produced within the family circle and by hand labor.

Agriculture was an important calling in colonial times, but other industries were also matters of everyday concern. The manufacture of shoes and clothing, for example, occupied an important place in the lives of the colonists. Much of the clothing made by these early Americans was stout, durable and even attractive in design, but it was produced by methods which were relatively laborious and inefficient. Whereas most of our clothing comes from a factory dominated by wonderfully efficient machinery, the greater part of the clothing worn by the colonists was produced within the family circle and by means of laborious hand labor. In the following description of the process of spinning linen in colonial times, Professor Tryon illustrates one phase of clothing manufacture in early America:

The production of linen began with flax growing.

In colonial times the family began at the very beginning. They could not get flax from any other country, so each family planted a little patch of flax, large enough to supply its own needs. The planting was in April or May. When the plants were three or four inches high they were weeded, usually by the children. In July or

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series C, pp. 18–21.

August the flax was grown and ready to use. It was pulled by the farmer and his boys, not cut, because cutting would injure the fibers.

Preparation of the fibers.

The next task was to get the fibers from the plant. First, the heads containing the seeds had to be pulled off. Sometimes this was done by pulling the plants through a kind of rake. Then came the real work of getting the fibers. The fibers, which are from twelve to thirty inches long, grow in the stalk just inside the bark. They had to be separated from the woody parts of the straw. This was done by wetting the plants or by leaving them out in the dew until the woody part had rotted. . . . After the woody parts of the fiber had been broken up . . . the stalks were dried and put away until winter, when, during the days suitable only for work indoors and during the long evenings, the family could work on the fibers.

"Breaking" and "swingling" the flax.

During the winter the dry stalks were brought down from the loft where they had been stored, and were beaten in several different ways to free the fibers from the rest of the stalk. The first step was to "break" the straws with a heavy homemade beater. This broke up the woody part of the stalk. Then the broken stalks were beaten again by a two-edged paddle called a "swingling knife." A strong man could swingle about forty pounds of flax in a day. It was customary to swingle the flax more than once. After the last swingling the rolls of fibers were sometimes pounded in a wooden trough with a great wooden pestle-shaped mallet over and over again until they were soft. The flax was then ready to be turned over to the women and girls. Up to that point the work was heavy and had been done by the men and boys.

The flax combed by the mother and her daughters.

When the flax came into the hands of the mother and her daughters, the first process was to "hatchel" it. This was done with a device which may be described as a number of combs put together. The teeth were made of small pointed iron rods about six inches in length. There were seven rows of such teeth, one row back of the other, with twelve teeth in each row. The mother fastened the hatchel to a chair by means of a string or stick, and, seating herself in another chair, with one handkerchief pinned about her neck and another tied about her head to keep off the dust, drew the fibers through the hatchel.

The purpose of this combing was to straighten out the fibers, to remove the last of the woody parts of the stalk, and to take out the short, broken, or coarse fibers. Hatcheling required skill to remove all the waste material and not throw away any of the good fibers. So the skillful housewife wound the bundle of fibers tightly around the fingers of one hand, and thus holding it drew the flax through the hatchel till the long threads lay in smooth piles with all the woody particles removed and the "tow," or short fibers, combed out.

The nature of thread.

After being straightened in this way, the fibers were ready to be spun into thread. Spinning is done by twisting the fibers together so that the long thread made up of a great many of the fibers holds together. If one examines any kind of thread, one will find that it is made up in this way of fibers twisted together.

The process of spinning.

Spinning was done many centuries ago entirely by hand, but about the date of the discovery of America, or a little later, some clever man about whom there is no record made the spinning wheel, which is driven by a foot treadle and works much faster than the hand spindle. The spinning wheel used for linen thread was known as the little wheel. It was about twenty inches in diameter and was kept in motion by the treadle. A cord or belt passed around the wheel to the spindle. When the wheel was driven by the treadle it kept the little spindle or stick on which the thread was twisted spinning around as fast as can easily be imagined. Taking a bundle or distaff full of the fibers that had been combed out or hatcheled, the spinner would by a skillful motion of the hand let the spindle twist the fibers into a thread and then wind up the finished thread as on a spool.

[After the flax had been turned into thread it was ready to be woven into cloth.]

16. The use of natural power in colonial times [1]

The colonists made use of natural power.

The spinning of flax fiber into thread is even now a laborious process, requiring a great deal of hand labor. For this reason we must not assume that all colonial manufacturing was as crude as that described in the preceding selection. In other lines the colonists worked with greater efficiency, and derived considerable aid from

[1] From J. Leander Bishop, *A History of American Manufactures*. Philadelphia, 1861. Vol. I, pp. 117, 119–121, 123–124, 126.

skillfully constructed machines. Of great significance is the extent to which these machines were driven by natural power. Throughout most of the colonial period steam was an undreamed-of aid to industry, but other forms of natural power were known and applied with more or less effectiveness. In the following description of mills in the colonies J. Leander Bishop illustrates the forms of natural power which were important to industry in that day:

Wind-mills in New England

The first mill in New England was a wind-mill, near Watertown, in Massachusetts, which was taken down in 1632 . . . because it would not grind but with a westerly wind. It was set up at the north end of the city of Boston. . . . This wind-mill is mentioned by Wood in 1633, and was, doubtless, a conspicuous object throughout the settlements, as being the first attempt to supersede the mortars and hand-mills, previously used by the people. They that year gathered their first harvest of English grain from the adjacent fields. . . . The principal supplies of food were at first derived from England, in flour or meal, or from Virginia, in grain, which was sent to this mill from all the scattered plantations as far east as the Kennebec. . . .

and in New York.

Wind-mills were numerous in New York under the Dutch dynasty, and were employed both for grinding corn and sawing lumber. . . . They were a scarcely less peculiar feature of Manhattan scenery than that of the fatherland, where they were a principal dependence before the days of steam.

Horse-mills in New York.

The first mill on the Island was a horse-mill, built in 1626. . . . The second story of the mill building was the first humble place of worship of the early settlers, and its site was almost within the shadow of the present Trinity steeple. A horse-mill, one of the earliest in the city, also stood for many years before the English possession, on the north side of the present South William Street. . . .

The preparation of grain in Western New York.

It is related that the pioneer settlers of Western New York, at a comparatively recent period, when mechanical contrivances were more easily obtainable, had no mills, and prepared their grain by an improvement upon the Indian method. They used wooden mortars, formed of a hollow log set on end, to which they applied a pestle, attached to a sweep like the pole of a well. It is related that some of the first settlers of Onondaga had to go forty miles to a mill, and carry their grist on their backs! . . .

[The wind-mill] was not limited among the people of the several colonies to the manufacture of flour and lumber. They were employed also in grinding cocoa-nut for chocolate, in making linseed and other oils, grinding sugar-cane, beating rice, raising water, and in many other uses. . . .

Water-mills in New England.

The first water-mill in the Plymouth colony was put up by Stephen Dean, near Billington Sea, in January, 1633, which he engaged should be sufficient to *beat* corn for the whole colony. But it is supposed to have been merely a pounding mill, by which the corn was cleared from the hull and prepared for samp and succotash, the use of which had been learned from the Indians. The next year it was agreed that Dean should surrender his privilege, so soon as a grinding mill should be set up. Soon after, in 1636, John Jenney, a brewer by trade, . . . was granted liberty by the Court at Plymouth to erect "a mill for grinding and beating of corn upon the brook of Plymouth." . . . The General Court of Massachusetts, in 1638, made regulations respecting corn-mills, prescribing the weights and measures to be used in them, and providing that corn should be weighed both to and from the mill, if required.

The increasing importance of agriculture and the result.

Although the husbandry of the colonists could at that date have made no very great progress, yet their prospects were becoming brighter. Emigrating multitudes of English farmers were coming in; new towns were being settled, and larger quantities of land were put under cultivation, and yielded ample returns. . . . Trade, which had already become considerable with the Dutch and English colonies, continental and insular, and with Europe, also, by furnishing outlet for every surplus product, stimulated the agriculture of the country, and increased the demand for flour-mills, bolting-mills, and bakeries. The older towns had often no small amount of trouble to provide themselves with the indispensable grist-mills. . . .

17. The traveling merchant in early America[1]

As suggested in the preceding selection, the steady growth of the colonies was accompanied by the development of trade and commerce. Now it is a fundamental principle in industrial development that the

[1] From Timothy Dwight, *Travels in New England and New York.* New Haven, 1821. Vol. II, pp. 53–55.

Trade, and its dependence upon transportation.

desire of people to engage in trade stimulates the development of means of transportation. Unfortunately for colonial trade, transportation facilities were very poor. Rude roads and waterways were practically the only means of travel, and everywhere transportation was slow and costly. Yet there was a brisk exchange of commodities between many parts of the colonies. An interesting agent of exchange was the pedlar or traveling merchant, who thrived during the latter part of the colonial period and the early part of our national life. The pedlar overcame the general lack of transportation facilities by personally taking to every part of the country the wares which he thought would be in demand by the people. An early observer, Timothy Dwight, describes the work of this traveling merchant as follows:

The manufacture of tin ware and its distribution by pedlars,

The inhabitants of this village [Berlin, Conn.,] make great quantities of tin ware, or utensils formed of tinned plates. . . . For many years after tinned plates were manufactured in this place into culinary vessels, the only method used by pedlars for conveying them to distant towns for sale, was by means of a horse and two baskets balanced on his back. After the war, carts and wagons were used for this purpose, and have, from that time to the present, been the only means of conveyance which have been adopted.

who wander along the coast,

The manner in which this ware is disposed of puts to flight all calculation. A young man is furnished by the proprietor with a horse, and a cart covered with a box, containing as many tin vessels as the horse can conveniently draw. This vehicle within a few years has, indeed, been frequently exchanged for a wagon, and then the load is doubled. Thus prepared, he sets out on an expedition for the winter. A multitude of these young men direct themselves to the Southern States, and in their excursions travel wherever they can find settlements. Each of them walks, and rides, alternately, through this vast distance, till he reaches Richmond, Newbern, Charleston, or Savannah; and usually carries with him to the place of his destination no small part of the gain which he has acquired upon the road. Here he finds one or more workmen, who have been sent forward to coöperate with him, furnished with a sufficient quantity of tinned plates to supply him with all the ware which he can sell during the season.

and into the interior.

With this he wanders into the interior country, calls at every door on his way, and with an address and pertinacity not easily resisted, compels no small number of the inhabitants to buy. At the commencement of the summer they return to New York, and thence to New Haven by water. . . . The original load of a single horse, as I am told, is rarely worth more than three hundred dollars, or of a wagon, more than six hundred. Yet this business is said to yield both the owner and his agent valuable returns, and the profit to be greater than that which is made by the sale of any other merchandise of equal value. Even those who carry out a single load, and dispose of it in the neighboring country find their employment profitable. . . .

Profits.

The pedlar increases his stock.

The business of selling tin ware has, within a few years, undergone a considerable change. Formerly the pedlar's load was composed exclusively of this manufacture; now he has an assortment of merchandise to offer his customers. He carries pins, needles, scissors, combs, coat and vest buttons, with many other trifling articles of hardware; and children's books, and cotton stuffs made in New England. A number set out with large wagons loaded with dry goods, hats, and shoes, together with tin ware and the smaller articles already mentioned. These loads will frequently cost the proprietor from one to two thousand dollars, and are intended exclusively for the southern and western states.

The store as a source of supply for the pedlar.

It is frequently the fact that from twenty to thirty persons are employed by a single house, in the manufacturing and selling of tin ware and other articles. The workmen, furnished with a sufficient quantity of the raw materials to employ them for six months, are sent on by water, in the autumn, to Virginia, North and South Carolina, or Georgia. They station themselves at some town in the interior, where the employer or his agent has a store, well furnished with such articles as the pedlars require. As the stock of each pedlar is exhausted, he repairs to the store for a supply. In this way a large amount of goods are vended during the six or eight months they are absent. . . .

18. The Americans a prosperous people [1]

Despite their relatively crude methods, the colonists prospered.

The foregoing selections indicate the broad outlines of the industrial development to which the American colonists had attained. It will be noted that in the matter of getting a living the methods of the colonists were crude and ineffective as compared with the industrial processes of present-day Americans. Yet despite the relative backwardness of colonial industries, the people were energetic and optimistic. On the whole, the colonial period was marked by an industrial progress so rapid and normal that most observers designated the early Americans a prosperous and happy people. The following extracts from Edmund Burke's account of the colonies just prior to the Revolution will give an idea of industrial conditions in early America:

Thriving condition of New England.

There is not one of our settlements which can be compared in the abundance of people, the number of considerable and trading towns, and the manufactures that are carried on in them, to New England. The most populous and flourishing parts of the mother country hardly make a better appearance. . . . Though there are in all the provinces of New England large towns which drive a considerable trade, the only one which can deserve to be much insisted upon in a design like ours is Boston, the capital of Massachusetts Bay, the first city of New England, and of all North America. . . . The town lies at the bottom of the harbor and forms a very agreeable view. It has a town house, where the courts meet and the exchange is kept. . . . Round the exchange are a great number of well-furnished booksellers' shops which find employment for five printing presses. There are ten churches within this town, and it contains at least twenty thousand inhabitants. . . .

Products of the soil in New York, New Jersey, and Pennsylvania.

The climate and soil in the three provinces of New York, New Jersey, and Pennsylvania, admits of no very remarkable difference. . . . The soil throughout these three provinces is in general extremely fruitful, abounding not only in its native grain, the Indian corn, but in all such as have been naturalized there from Europe. Wheat is in such abundance, and of so excellent a quality, that few parts of the world . . . exceed it in the one or the other of these particulars. . . .

[1] From Edmund Burke, *An Account of the European Settlements in America*. Fourth Edition. Dublin, 1762. Vol. II, pp. 165–167, 180–181, 184–185, 199–200.

They have a great number of horned cattle, horses, sheep, and hogs. All our European poultry abound there. . . . Every species of herbs or roots which we force in our gardens, grows here with great ease. . . .

The trade of New York.

The city of New York contains upwards of two thousand houses, and above twelve thousand inhabitants, the descendants of Dutch and English. . . . The town has a very flourishing trade, and in which great profits are made. The merchants are wealthy, and the people in general most comfortably provided for, and with a moderate labor. From the year 1749 to 1750 two hundred and thirty-two vessels have been entered in this port, and two hundred and eighty-six cleared outwards. In these vessels were shipped six thousand seven hundred and thirty-one tons of provisions, chiefly flour, and with a vast quantity of grain. . . . The inhabitants are between eighty and an hundred thousand; the lower class easy; the better [class] rich and hospitable; great freedom of society; and the entry of foreigners made easy by a general toleration of all religious persuasions. . . .

Conditions in Pennsylvania.

The city of Philadelphia . . . increases in the number and beauty of its buildings every day. And as for the province, of which this city is the capital, there is no part of British America in a more growing condition. In some years more people have transported themselves into Pennsylvania than into all the other settlements together. . . . The Pennsylvanians are an industrious and hardy people. They are most of them [prosperous], though but a few of the landed people can be considered as rich. But they are all well lodged, well fed, and, for their condition, well clad, too; and this at the more easy rate, as the inferior people manufacture most of their own wear, both linens and woolens. . . .

Questions on the foregoing Readings

1. What is the significance of the settlement at Jamestown in 1607?
2. Describe the first landing in Virginia.
3. What was the reason for the sickness which fell upon the settlers?
4. Describe the part played by Captain John Smith in the life of the settlement.
5. What industry is of basic importance to primitive communities?
6. Why were settlers intending to come to New Netherland advised to arrive in the spring?
7. Describe the preparation of the soil in New Netherland.
8. What sort of shelter was commonly used in this colony?

9. How was most of the colonists' clothing produced?
10. Describe the preparation of flax fibers as a preliminary to the manufacture of linen.
11. What is meant by "breaking" and "swingling" flax?
12. How were the fibers made into thread?
13. Describe the way in which the spinning wheel was used in colonial times.
14. What form of natural power was used to run the first mill in New England?
15. Describe the preparation of grain in Western New York in early times.
16. Describe the nature of the water-mill as used in New England.
17. What was the condition of transportation in colonial times?
18. How were the tin products of Berlin, Connecticut, distributed?
19. Describe the work of the pedlar or traveling merchant in early America.
20. What can be said as to the profits yielded by this business?
21. Explain the way in which the business was expanded.
22. Give a brief account of New England just before the Revolution.
23. What were some of the products of the soil in New York, New Jersey and Pennsylvania?
24. What was the nature of the trade of New York in colonial times?
25. Describe, briefly, industrial conditions in Pennsylvania in colonial times.

CHAPTER IV

THE INDUSTRIAL REVOLUTION

19. The principle of the division of labor[1]

The Industrial Revolution closely related to the principle of the division of labor.

The purpose of this chapter is to explain and illustrate the methods by means of which civilized man has so markedly improved his control over natural products and forces as to bring about a revolution in industry. One of the basic principles involved in the Industrial Revolution has to do with the division of labor. This principle has been fully worked out only within recent times, though it appears to have been known and even somewhat appreciated since the earliest times of which we have any records. The nature and significance of this important principle are described in the following selection from the writings of Adam Smith, a celebrated Scotch philosopher who is generally known as the "father" of modern economics:

Origin of the principle of the division of labor.

This division of labor, from which so many advantages are derived, is not originally the effect of any human wisdom, which foresees and intends that general opulence to which it gives occasion. It is the necessary, though very slow and gradual, consequence of a certain propensity in human nature which has in view no such extensive utility; *i.e.* the propensity to truck, barter, and exchange one thing for another. . . .

The principle unknown among the lower animals.

It is common to all men, and to be found in no other race of animals, which seem to know neither this nor any other species of contrasts. . . . Nobody ever saw a dog make a fair and deliberate exchange of one bone for another with another dog. Nobody ever saw one animal by its gestures and natural cries signify to another, this is mine, that yours; I am willing to give this for that. When an animal wants to obtain something either of a man or of another animal, it has no other means of persuasion but to gain the favor of those whose

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. Book I, chapter i.

service it requires. A puppy fawns upon its dam, and a spaniel endeavors by a thousand attractions to engage the attention of its master who is at dinner, when it wants to be fed by him.

Man must appeal to the self-interest of his fellows,

Man sometimes uses the same arts with his brethren, and when he has no other means of engaging them to act according to his inclinations, endeavors by every servile and fawning attention to obtain their good will. He has not time, however, to do this upon every occasion. In civilized society he stands at all times in need of the coöperation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons. In almost every race of animals each individual, when it is grown up to maturity, is entirely independent, and in its natural state has occasion for the assistance of no other living creature. But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favor, and show them that it is for their own advantage to do for him what he requires of them.

and not to their benevolence.

Whoever offers to another a bargain of any kind, proposes to do this: Give me that which I want, and you shall have this which you want, is the meaning of every such offer; and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of. It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities, but of their advantages. . . .

An example of how the division of labor may arise.

As it is by treaty, by barter, and by purchase, that we obtain from one another the greater part of those mutual good offices which we stand in need of, so it is this same trucking disposition which originally gives occasion to the division of labor. In a tribe of hunters or shepherds a particular person makes bows and arrows, for example, with more readiness and dexterity than any other. He frequently exchanges them for cattle or for venison with his companions; and he finds at last that he can in this manner get more cattle and venison, than if he himself went to the field to catch them. From a regard to his own interest, therefore, the making of bows

and arrows grows to be his chief business, and he becomes a sort of armourer.

Another excels in making the frames and covers of their little huts or moveable houses. He is accustomed to be of use in this way to his neighbors, who reward him in the same manner, with cattle and venison, till at last he finds it to his interest to dedicate himself entirely to this employment, and to become a sort of house-carpenter. In the same manner a third becomes a smith or a brazier; a fourth a tanner or dresser of hides or skins. . . . And thus the certainty of being able to exchange all that surplus part of the produce of his own labor, (which is over and above his own consumption,) for such parts of the produce of other men's labor as he may occasion for, encourages every man to cultivate and bring to perfection whatever talent or genius he may possess for that particular species of business. . . .

Further examples.

20. The principle of the machine[1]

The highly industrial peoples of to-day, as for example the inhabitants of the United States, owe much of their material prosperity to the fact that they have worked out very minutely the principle of the division of labor. Now this principle may express itself in two ways. On the one hand, a given task, such as the making of a shoe, may be divided up among a number of hand workers; on the other hand, men may also share their labor with machines. The advantage of dividing up labor between man and machine is that by this process man is enabled to make use of a greater amount of energy and power than he himself can exert directly. The principle involved in the use of machinery is explained by Lewis Elhuff in the following passage:

Two phases of the division of labor.

In order to understand the principles of some of the simple machines, it is necessary to get a definite idea of a few words which are used in discussing them.

A. *Energy.* — Coal and wood have energy which can be changed into heat by oxidation. Hot iron has more energy than cold iron, and this energy can be removed from the iron by plunging it into cold water. The water then has the energy which the iron had. These objects have energy by virtue of their condition.

Objects having energy by virtue of their condition,

[1] From Lewis Elhuff, *General Science.* D. C. Heath and Co., Boston, 1916; pp. 176–177, 179–180.

motion,

We also have energy in our bodies and can use it at will. A boy coasting down a hill on a bicycle has enough energy to coast part way up another hill. A stone thrown into water makes the water splash and wave, because of its energy. The energy of a falling hammer will drive a stake into the ground. These objects have energy because of their motion.

or position.

A boy on a sled on the top of a hill in winter has enough energy to take him to the bottom. A book held above the desk has sufficient energy, if permitted to fall, to shake the desk. Water in a city reservoir has enough energy to cause it to flow through the pipes to the houses. These things have energy because of their position. . . .

Energy defined.

Energy is ability or capacity to move an object. To walk requires energy because our body is the object moved. It requires energy to move a wagon, a car, or a train. Energy, like heat, cannot be thought of apart from some object or substance.

The nature of force.

B. *Force.* — We never use at one time all of the energy stored in our body, but only a part of it at one time. . . . The part of the energy that we use at any one time is called *force*. . . .

The nature and function of the machine.

A machine is a device used to transform or transfer energy, and to apply force for doing useful work. Illustration of how a machine can transform energy: when coal is burned in the fire-box of a boiler, the heat of the coal makes steam of the water, and the steam in running the engine develops mechanical energy, which can be made to develop electricity or electrical energy by turning a dynamo. The electrical energy can be changed back to mechanical energy and drive street cars along the tracks. All kinds of steam and gas engines and electrical machines are devices for transforming energy as well as for transferring it, while the simple machines are either devices for transferring energy or devices to which force can be applied and useful work result.

Types of machines.

The simple machines are six in number: The (a) lever, (b) inclined plane, (c) wedge, (d) screw, (e) pulley, and (f) wheel and axle. Of these the lever and inclined plane are basic types. The pulley and the wheel and axle are modified forms of the lever, while the wedge and screw are modified inclined planes. All complex machines are only combinations of two or more simple machines. . . .

Machines, especially the simple machines, are often thought of as

devices for saving work. If a heavy object that could not be moved without a machine can be moved by the use of one, we are willing to waste a little work to accomplish our purpose. By the use of a machine the force applied does not have to be so great as it would have to be without the machine. . . .

The machine a labor-saving device.

21. The Industrial Revolution in England[1]

The period known in history as the Industrial Revolution owes its fame to the fact that it was then that man began, first, to make effective use of the principle of the division of labor among individuals, and second, that he contrived machines which enabled him to take advantage of natural power. The resulting improvement in productive methods was so great as to constitute a veritable revolution in industry. This revolution began in England about the middle of the eighteenth century, and from England spread gradually to other countries. The beginnings of the Industrial Revolution in England are described by Professor Hutton Webster in the following passage:

How the Industrial Revolution began.

The revolution in manufacturing began with the textile industry. Old-fashioned spinning formed a slow, laborious process. The wool, flax, or cotton, having been fastened to a stick called the distaff, was twisted by hand into yarn or thread and wound upon a spindle. The spinning wheel . . . afterwards came into general use. The spinner now no longer held the spindle in her hand, but set it upon a frame and connected it by a belt to the wheel, which, when revolved, turned the spindle. The subsequent addition of a treadle to move the wheel freed both hands of the spinner, so that she could twist two threads instead of one. Weaving was done on the hand loom, a wooden frame to which vertical threads (the warp) were attached. Horizontal threads (the weft or woof) were then inserted by means of an enlarged needle or shuttle.

Spinning and weaving prior to the Industrial Revolution.

This primitive method, followed for thousands of years throughout the world, was first improved by the Englishman, John Kay, in 1733. His invention of the "flying shuttle" enabled the operator, by pulling a cord, to jerk the shuttle back and forth without the aid of an as-

The beginnings of improvement, 1733.

[1] From Hutton Webster, *Modern European History*. D. C. Heath and Co., Boston, 1920; pp. 453–458.

sistant, and also much more rapidly than by hand. The device thus saved labor and doubled the speed of weaving.

Hargreaves's "spinning jenny," about 1764.

The demand for thread and yarn quickly outran the supply, for the spinners could not keep up with the weavers. Prizes were then offered for a better machine than the spinning wheel. At length, James Hargreaves, a poor workman of Lancashire in Northern England, patented what he named the "spinning jenny," in compliment to his industrious wife. This machine carried a number of spindles turned by cords or belts from the same wheel, and operated by hand. It was a very simple affair, but it spun at first eight threads, then sixteen, and within the inventor's own lifetime eighty, thus doing the work of many spinning wheels.

Arkwright's "water frame," 1769.

The thread spun by the "spinning jenny" was so frail that it could be used only for the weft. The spinners needed a machine to produce a hard, strong thread for the warp. Richard Arkwright met this need by the invention of the "water frame," so called because it was run by water power. The machine contained two sets of rollers, one rotating at a higher speed than the other. The cotton was drawn out by the rollers to the requisite fineness and was then twisted into thread by revolving spindles.

Crompton's "mule," 1779.

Samuel Crompton soon combined the essential features of the Hargreaves and Arkwright machines into what became known as the "mule," because of its hybrid origin. When the mechanism was drawn out on its wheels one way, the strands of cotton were stretched and twisted into threads; when it was run back the other way, the spun threads were wound on spindles. The "mule" quite superseded Hargreaves's device. It has been steadily improved, and at the present time may carry as many as two thousand spindles.

Cartwright's power loom, 1785.

These three inventions again upset the balance in the textile industry, for now the spinners could produce more thread and yarn than the weavers could convert into cloth. The invention which revolutionized weaving was made by Edward Cartwright, an English clergyman, who had never even seen a weaver at work. He constructed a loom with an automatic shuttle operated by water power. Improvements in this machine enable a single operator to produce more cloth than two hundred men could weave on the old-fashioned hand loom. . . .

What was to furnish motive power for the new machinery? Windmills were obviously too unreliable to be profitably used. Human hands had at first operated Hargreaves's "spinning jenny," and horses had worked Arkwright's original machine. Both inventors, however, soon turned to water power to drive the wheel, and numerous mills were built along the streams of northern England.

The problem of motive power finally solved by the improvement of the steam engine.

Then came steam power. The expansive force of steam, though known in antiquity, was first put to practical service at the close of the seventeenth century, when steam pumps were invented for ridding mines of water. The earliest steam engine was a crude affair . . . [but James Watt, a Scotchman of mechanical genius] overcame the two greatest defects of the steam pump. He subsequently patented devices by which the back-and-forth motion of the piston could be made to drive a wheel connected by a belt with machinery, a throttle-valve to regulate the rate of admission of steam into the cyclinder, a governor to control the speed of rotation, and an indicator to record steam pressure.

These and other improvements opened up new fields of usefulness for steam power. In 1785, the year of Cartwright's invention, the Watt engine began to be set up in factories for the operation of spinning machines and looms. Steam power only slowly displaced water power, however, owing to the fact that much capital had already been invested in water-driven cotton mills. . . .

22. America on the verge of the Industrial Revolution [1]

The state of American manufactures just prior to the Industrial Revolution.

The machines described in the preceding selection gave Englishmen a decided advantage in the manufacture of textiles and other goods. American manufacturers had been experimenting with a number of devices designed to improve their processes, but the English inventions were greatly superior to the machines constructed in this country. The earliest attempts of Americans to secure the new machinery from England were unsuccessful, because England had passed laws prohibiting the export of this machinery. The whole period, however, was one of progress and anticipation, and shrewd observers recognized that America was on the verge of the

[1] From Tench Coxe, *A View of the United States of America.* Philadelphia, 1794; pp. 38–42, 47–48.

Industrial Revolution. The situation in the year 1787 was described by Tench Coxe, an early and enthusiastic advocate of American manufactures, as follows:

The possibilities of manufacturing by means of wind and water machines.

Factories which can be carried on by water-mills, wind-mills, fire, horses and machines ingeniously contrived, are not burdened with any heavy expense of boarding, lodging, clothing and paying workmen, and they supply the force of hands to a great extent without taking our people from agriculture. By wind and water machines we can make pig and bar iron, nail rods, tire, sheet-iron, sheet-copper, sheet-brass, anchors, meal of all kinds, gun-powder, writing, printing and hanging paper, snuff, linseed oil, boards, plank and scantling; and they assist us in finishing scythes, sickles and woolen cloths. Strange as it may appear they also card, spin and even weave, it is said, by water in the European factories. . . .

The steam mill foreseen.

By fire we conduct our breweries, distilleries, salt and potash works, sugar houses, potteries, casting and steel furnaces, works for animal and vegetable oils and refining drugs. Steam mills have not as yet been adopted in America, but we shall probably see them after a short time in places where there are few mill seats, and in [Philadelphia] and other great towns of the United States. Philadelphia, by adopting the use of them, might make a great saving on all the grain brought hither by water, which is afterwards manufactured into meal, and they might be usefully applied to many other valuable purposes.

Horse-power, and its possibilities.

Horses give us, in some instances, a relief from the difficulties we are endeavoring to obviate. They grind the tanner's bark and potter's clay; they work the brewer's and distiller's pumps, and might be applied, by an inventive mind, as the moving principle of many kinds of mills.

The accomplishments of machines in Europe.

Machines, ingeniously constructed, will give us immense assistance. The cotton and silk manufacturers in Europe are possessed of some that are invaluable to them. Several instances have been ascertained, in which a few hundreds of women and children perform the work of thousands of carders, spinners and winders. In short, combinations of machines with fire and water have already accomplished much more than was formerly expected from them by the most visionary enthusiast on the subject. Perhaps I may be too sanguine, but

they appear to me fraught with immense advantages to us. . . . We may certainly borrow some of their inventions, and others of the same nature we may strike out ourselves, for on the subject of mechanism America may justly pride herself. . . .

European immigration anticipated with satisfaction.

The blessings of civil and religious liberty in America, and the oppressions of most foreign governments, the want of employment at home, and the expectations of profit here, curiosity, domestic unhappiness, civil wars, and various other circumstances will bring many manufacturers to this asylum for mankind. Ours will be their industry, and, what is of still more consequence, ours will be their skill. Interest and necessity, with such instructors, will teach us quickly. In the last century the manufactures of France were next to none; they are now worth millions to her yearly. Those of England have been more improved within the last twelve years, than in the preceding fifty. At the peace of 1762, the useful arts and manufactures were scarcely known in America. How great has been their progress since, unaided, undirected and discouraged. . . .

The encouragement of manufactures recommended.

We must carefully examine the conduct of other countries in order to possess ourselves of their methods of encouraging manufactures, and pursue such of them as apply to our situation, so far as it may be in our power. . . . Premiums for useful inventions and improvements, whether foreign or American, for the best experiments in any unknown matter, and for the largest quantity of any valuable raw material, must have an excellent effect. The state might with great convenience enable an enlightened society, established for the purpose, to offer liberal rewards in land for a number of objects of this nature. . . . By offering these premiums for useful inventions to any citizen of the Union, or to any foreigner, who would become a citizen, [we might reap great benefits.] . . .

23. The Industrial Revolution in America[1]

The views expressed by Tench Coxe in the last paragraph of the preceding selection were shared by a number of other Americans. The offering of rewards for inventions had begun in America at least as early as 1786, in which year the legislature of Massachusetts granted

[1] From the *Tenth Census of the United States*. Washington, 1883. Vol. II, pp. 538–539.

Encouragement of inventors by the legislature of Massachusetts.

to Robert and Alexander Barr the sum of two hundred pounds to enable them to complete a roping machine, and also to "construct such other machines as are necessary for the purpose of carding, roping, and spinning of sheep's wool, as well as of cotton wool." The Barrs were Scotchmen who had been induced to come to Massachusetts for the purpose of constructing spinning machines. The following extract from the *Tenth Census of the United States* takes up the story at this point:

The first cotton goods factory in America.

There is no doubt that the machinery built by [the Barrs and others] was the first in this country which included the Arkwright devices. The first factory, however, in America expressly for the manufacture of cotton goods was erected at Beverly, Massachusetts, in 1787. This enterprise was aided by the legislature. The factory at Beverly was built of brick, was driven by horse power, and was continued in operation for several years; but its career as a cotton mill was brief, and no great success attended it. . . .

The honor of the introduction of power-spinning machines in this country, and of their early use here, is shared by [Massachusetts and Rhode Island], for while Massachusetts claimed to have made the first experiments in embodying the principles of Arkwright's inventions, and the first cotton factory in America, Rhode Island claims the first factory in which perfected machinery, made after the English models, was practically employed.

Samuel Slater, "the father of American manufactures."

This was the factory built by Samuel Slater, in 1790, in Pawtucket, Rhode Island, which still stands in the rear of Mill street in that city, and the hum of cotton machinery can still be heard within its walls. Previous to 1790 the common jenny and stock card had been in operation upon a small scale in various parts of the United States, but principally in Pennsylvania, New York, Rhode Island, and Massachusetts; but every endeavor to introduce the system of spinning known as water-frame spinning, or Arkwright's method, had failed. The introduction of this system was the work of Slater, whom President Jackson designated "the father of American manufactures."

Samuel Slater was born in Belper, Derbyshire, England, June 9, 1768, and at fourteen years of age was bound as an apprentice to . . . a manufacturer of cotton machinery. . . . Young Slater had

every opportunity to master the details of the construction of the cotton machinery then in use in England. . . . Near the close of his term his attention was drawn to the wants of the [American] states by accidentally seeing a notice in an American paper of the efforts various states were making by way of offering bounties to parties for the production of cotton machinery. Slater knew well that under the laws of England he could carry neither machines nor models, nor plans of machines, out of the country . . . [but he took pains to] perfect his knowledge of the business in every department, [so] that he could construct machinery from memory without taking plans, models, or specifications.

Slater makes himself familiar with the English machines,

With this knowledge Slater embarked at London, September 13, 1789, for New York, where he landed November 17, and at once sought parties interested in cotton manufactures. . . . He corresponded with Messrs. Brown & Almy, of Providence, who owned some crude spinning machines, . . . [and] made arrangements with [them] to construct machinery on the English plan. This he did at Pawtucket, making the machinery principally with his own hands, and on the 20th of December, 1790, he started three cards, drawing and roving, together with seventy-two spindles, working entirely on the Arkwright plan, and being the first of the kind ever operated in America. . . .

and comes to America, where he establishes the Arkwright system of spinning.

24. Progress of American manufactures[1]

When we speak of the Industrial Revolution, we do not mean a sudden or complete change in industrial methods, but rather a series of changes, in many cases effected at different times, and most of them extending over a considerable period. Looking back upon the first half century following the introduction of power machinery into this country, we of to-day are impressed with the profound changes which came about in that period. But power machinery did not at once dominate even the textile industries, and numerous other industries were for a long time carried on largely by hand. Something of the variety of American manufactures in 1810, and something of the extent to which they were conducted by modern methods, may

Meaning of the term "Industrial Revolution."

[1] From Gallatin's *Report on Manufactures*, 1810. American State Papers, Series Finance, Vol. II, pp. 426–427, 429–430.

be indicated by the following extract from Gallatin's celebrated *Report on Manufactures:*

Manufactures of leather.

The principal manufactures of leather are those of shoes and boots, harness and saddles. Some inconsiderable quantities of the two last articles are both imported and exported. . . . The shoe manufactures of New Jersey are extensive. That of Lynn, in Massachusetts, makes 100,000 pair of women's shoes annually. . . .

Spinning mills,

Returns have been received of eighty-seven [spinning] mills, which were erected at the end of the year 1809, sixty-two of which were in operation, and worked, at that time, thirty-one thousand spindles. . . .

and the manufacture of cloth.

Some of the mills, above mentioned, are also employed in carding and spinning wool, though not to a considerable amount. But almost the whole of that material is spun and woven in private families, and there are as yet but few establishments for the manufacture of woolen cloth. Some information has, however, been received [concerning establishments manufacturing cloth in different parts of the country]. All these cloths, as well as those manufactured in private families, are generally superior in quality, though somewhat inferior in appearance, to imported cloths of the same price. The principal obstacle to the extension of the manufacture is the want of wool, which is still deficient, both in quality and quantity. . . .

Household manufacture of clothing.

But by far the greater part of the goods made of [cotton, flax, and wool] are manufactured in private families, mostly for their own use, and partly for sale. They consist principally of coarse cloth, flannel, cotton stuffs, and stripes of every description, linen, and mixtures of wool with flax or cotton. . . . About two-thirds of the clothing, including hosiery, and of the house and table linen, worn and used by the inhabitants of the United States, who do not reside in cities, is the product of family manufactures.

In the Eastern and Middle States, carding machines, worked by water, are everywhere established, and they are rapidly extending southward and westward. Jennies, other family spinning machines, and flying shuttles are also introduced in many places; and as many fulling mills are erected as are required for finishing all the cloth which is woven in private families. . . .

The manufactures of iron consist principally of agricultural implements, and of all the usual work performed by common blacksmiths.

To these may be added anchors, shovels, and spades, axes, scythes, and other edge tools, saws, bits, and stirrups, and a great variety of the coarser articles of ironmongery; but cutlery, and all the finer species of hardware, and of steel work, are almost altogether imported from Great Britain. Balls, shells, and cannon of small caliber, are cast in several places. . . . There are several iron foundries for casting every species of work wanted for machinery, and . . . steam engines are made . . . in Philadelphia. . . . Manufactures of iron.

From this imperfect sketch of American manufactures, it may with certainty be inferred that their annual produce exceeds one hundred and twenty millions of dollars. And it is not improbable that the raw materials used, and the provisions and other articles consumed, by the manufacturers, create a home market for agricultural products not very inferior to that which arises from foreign demand. . . . Summary.

The most prominent of [the causes retarding the progress of manufactures in the United States] are the abundance of land compared with the population, the high price of labor, and the want of sufficient capital. The superior attraction of agricultural pursuits, [and] the great extension of American commerce during the late European wars . . . may also be enumerated. . . . Factors retarding American manufactures.

Questions on the foregoing Readings

1. What can be said concerning the relation of the Industrial Revolution to the principle of the division of labor?
2. Of what propensity in human nature is the division of labor a consequence?
3. Is the principle of the division of labor found among the lower animals? Explain.
4. What does Adam Smith mean by saying that we satisfy our wants by appealing, not to the benevolence of our fellow men, but to their self-love?
5. Give some examples of the manner in which the division of labor may arise.
6. What are two phases of the division of labor?
7. Discuss "energy."
8. What is meant by "force"?
9. What is the function of the machine?
10. Name some types of machines.
11. Describe spinning and weaving prior to the Industrial Revolution.

12. Explain the importance of the inventions effected by Kay, Hargreaves, Crompton, and Cartwright.
13. What is the significance of the steam engine in the story of the Industrial Revolution?
14. Name some commodities which Tench Coxe in 1787 declared could be manufactured by means of wind and water machines.
15. What was the attitude of this man toward European immigration?
16. What measures did he recommend with reference to the encouragement of American manufactures?
17. To what extent did the legislature of Massachusetts in 1786 encourage the invention of textile machinery?
18. Who was Samuel Slater, and when was he born?
19. When did Slater arrive in this country?
20. Describe his work in America.
21. Does the term "Industrial Revolution" refer to a sudden and complete change in industrial methods, or to a series of changes extended over a considerable period? Explain.
22. What can you say as to manufactures of leather in 1810?
23. Describe the manufacture of cloth in 1810.
24. Describe the manufacture of iron products in 1810.
25. Name some factors retarding American manufactures in the early part of the nineteenth century.

CHAPTER V

THE CONQUEST OF THE WEST

25. Modern industry demands extensive markets[1]

The division of labor is limited by the extent of the market,

In the last chapter we noticed the beginnings of the Industrial Revolution in the United States. The term *beginnings* is here used purposely, because the *completion* of the Industrial Revolution was to be delayed for almost a hundred years. The beginnings of the Industrial Revolution were marked by the realization that the output of the group or community could be greatly increased by a more and more complex division of labor between men and machines. But though the result of such a division of labor would be to increase the product, it should be remembered that it is not economical to turn out this increased product unless there are purchasers for it. In other words, there must be adequate markets before the complex division of labor is practicable. In the following selection, Adam Smith explains the statement that the division of labor is limited by the extent of the market:

as Adam Smith points out

As it is the power of exchanging that gives occasion to the division of labor, so the extent of this division must always be limited by the extent of the market. When the market is very small, no person can have any encouragement to dedicate himself entirely to one employment, for want of the power to exchange all that surplus part of the produce of his own labor, (which is over and above his own consumption,) for such parts of the produce of other men's labor as he has occasion for.

There are some sorts of industry, even of the lowest kind, which can be carried on nowhere but in a great town. A porter, for example, can find employment and subsistence in no other place. A village is by much too narrow a sphere for him; even an ordinary market

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. Book I, chapter iii.

Some sorts of industry can be carried on nowhere but in a great town.

town is scarce large enough to afford him constant occupation. In the lone houses and very small villages which are scattered about in so desert a country as the Highlands of Scotland, every farmer must be butcher, baker and brewer for his own family. In such situations we can scarce expect to find even a smith, a carpenter, or a mason, within less than twenty miles of another of the same trade. . . . It is impossible there should be such a trade as even that of a nailer in the remote and inland parts of the Highlands of Scotland. Such a workman at the rate of a thousand nails a day, and three hundred working days in the year, will make three hundred thousand nails in the year. But in such a situation it would be impossible to dispose of one thousand, that is, of one day's work in the year.

Relation of the division of labor to water-carriage.

As by means of water-carriage a more extensive market is opened to every sort of industry than what land-carriage alone can afford it, so it is upon the sea-coast, and along the banks of navigable rivers, that industry of every kind naturally begins to subdivide and improve itself, and it is frequently not till a long time after that those improvements extend themselves to the inland parts of the country. A broad-wheeled wagon, attended by two men, and drawn by eight horses, in about six weeks' time carries and brings back between London and Edinburgh near four ton weight of goods. In about the same time a ship navigated by four or eight men, and sailing between the ports of London and Leith, frequently carries and brings back two hundred ton weight of goods. . . .

Were there no other communication between . . . [London and Edinburgh], therefore, but by land-carriage, as no goods could be transported from the one to the other, except such whose price was very considerable in proportion to their weight, they could carry on only a small part of that commerce which at present subsists between them. . . .

Dependence of markets upon water-carriage.

Since such, therefore, are the advantages of water-carriage, it is natural that the first improvements of art and industry should be made where this conveniency opens the whole world for a market to the produce of every sort of labor, and that they should always be much later in extending themselves into the inland parts of the country. The inland parts of the country can for a long time have no other market for the greater part of their goods, than the country

which lies round about them. . . . The extent of their market, therefore, must for a long time be in proportion to the riches and populousness of that country, and consequently their improvement must always be posterior to the improvement of that country. In our North American colonies the plantations have constantly followed either the sea-coast or the banks of the navigable rivers, and have scarce anywhere extended themselves to any considerable distance from both. . . .

26. The Erie Canal extends the market[1]

The extent of the market depends upon transportation.

In the enlargement of the market for the products of industry, it is hardly possible to over-estimate the importance of transportation. When means of transportation are relatively cheap and fairly efficient, the effect is greatly to stimulate industrial development. The large-scale manufacture of products becomes practicable, because they can be carried to distant places and sold to individuals who cannot or will not manufacture them for themselves. In turn, remote communities may send their surplus products to the manufacturing centers. The development of the West by the improvement of means of transportation had a profound influence upon American industry. Industry and commerce were greatly stimulated, for example, by the opening, in 1825, of the Erie Canal between the Hudson river and Lake Erie. The following description is from Poor's *Manual* for 1868–1869:

Transportation costs before the opening of the Erie Canal.

Previous to the construction of the Erie Canal, the cost of transporting a ton of merchandise or produce from the City of New York to the City of Buffalo was $100. The time required was twenty days! The cost and the time involved in this case was a striking illustration of the condition of the whole country; of the necessity of improved highways, and of the influence they have exerted in the creation of wealth, as well as their social and political importance.

Upon the opening of the canal, the cost of transportation from Buffalo to New York was reduced from $100 to $5 a ton, and the time from twenty to six days. Previous to its construction, wheat grown in Central and Western New York was floated, in *arks*, down the

[1] From H. V. Poor, *Manual of the Railroads of the United States for* 1868–1869. New York, 1868; pp. 12–14.

How the canal reduced the cost of transportation.

Delaware and Susquehanna Rivers to market — to Philadelphia and Baltimore. The City of New York (which now draws from districts 2,000 miles distant . . . its vast supplies of grain for distribution, throughout all the Eastern States, and for its foreign trade) was, a little over forty years ago, almost completely cut off from the trade of its own State. . . .

Opening up of the Great West.

With the improvements that have been made in the construction of highways, the great bulk of supplies of wheat and corn for the Eastern markets are now grown in Central Illinois and in the vast region lying to the west and northwest of Lake Michigan. As fast as our people have moved westward in their triumphal march across the continent, the railway which they have taken with them has given a high commercial value to whatever they produce, no matter how distant from the points of consumption. Their progress, wealth, and, we may say, civilization, have been the creation, within fifty years, of the inventive genius of the race.

Success of the Erie Canal stimulates canal building throughout the country.

The success of the Erie Canal had [a stimulating] effect upon the whole country, and similar works were everywhere projected. The States of Pennsylvania, Maryland, Ohio, Indiana and Illinois at once embarked upon elaborate systems designed to give to every portion of their States the advantage of such works. Virginia, also, undertook the construction of a canal from the Chesapeake up the valley of the James River to the Ohio.

Failure of most of the canals,

We have not the space to give even a sketch of the progress and results of these undertakings. While very great advantages in many cases were secured, all the canals constructed in the United States, except the Erie, the Delaware and Raritan, and the Chesapeake and Delaware may be regarded as commercial failures. They became so from the discovery of a better mode of transportation — the railway. The State of Pennsylvania, alone, completed about 1,000 miles of canal within its territory, the whole of which have, within a few years, been disposed of at nominal prices to private companies. Their value had been almost entirely superseded by railways, which private enterprise soon constructed upon all their routes. Already the use of portions of these canals has been abandoned, while the earnings of others, that are still kept up, hardly meet the cost of their maintenance.

and the reason for this.

Some examples.

The great work which the State of Maryland undertook — the Chesapeake and Ohio Canal — was carried only to Cumberland, a distance of about 180 miles. It has proved to be nearly valueless even as a local work. The James River and Kanawha Canal reached, many years ago, its final terminus at the base of the Alleghany Mountains. The State of Ohio constructed two lines of limited capacity from Lake Erie to the Ohio, one from Cleveland to Portsmouth, and the other from Toledo to Cincinnati. Until railroads were constructed . . . the canals performed a highly useful service. They have now practically ceased to be carriers either of produce or merchandise.

Further examples.

The State of Indiana was not so fortunate as Ohio. Of an immense extent of projected lines she was able to complete only one work, the Wabash and Erie Canal, which was opened from Toledo to Evansville, on the Ohio River. The portion of this work below Terre Haute was speedily abandoned, while that north of it is now let to private parties upon the sole condition of keeping it in repair. The State of Illinois was enabled to complete only one of the numerous works undertaken — a canal from Lake Michigan, at Chicago, to the navigable waters of the Illinois River. . . .

27. The coming of the railroad[1]

The supremacy of the canal threatened by the steam railroad.

The early part of the nineteenth century is noted for the enthusiastic attention which Americans gave to canal building. During that period the canal was thought to be the most promising form of transportation, and great things were expected of it. The success of the Erie Canal seemed to justify these hopes, and, as we have just seen, encouraged canal building in other parts of the country. But while the excitement over canals was still at its height, the air began to be filled with rumors of a new and more revolutionary form of transportation. This was the steam railroad, which began to supersede the canal in the second quarter of the nineteenth century. The beginnings of the railroad in the United States are described as follows by J. H. B. Latrobe, an eye-witness to some of the earliest experiments with steam transportation in this country:

[1] From J. H. B. Latrobe, *The Baltimore and Ohio Railroad: Personal Recollections.* Baltimore, 1868; pp. 12–18.

The problem of the steam railroad in America is attacked by Mr. Peter Cooper.

When steam made its appearance on [an English railroad] it attracted great attention [in this country]. But there was this difficulty about introducing an English engine on an American road. An English road was virtually a straight road. An American road had curves sometimes of as small radius as two hundred feet. . . . For a brief season it was believed that this feature of the early American roads would prevent the use of locomotive engines. The contrary was demonstrated by . . . Mr. Peter Cooper of New York. Mr. Cooper was satisfied that steam might be adapted to the curved roads which he saw would be built in the United States. . . . To vindicate his belief [he built an engine which] could not have weighed a ton; but he saw in it a principle which the forty-ton engines of today have but served to develop and demonstrate. . . .

The first journey by steam in America.

Mr. Cooper's success was such as to induce him to try a trip to Ellicott's Mills; and an open car, the first used upon the [Baltimore & Ohio Railroad], having been attached to his engine, and filled with the directors and some friends . . . the first journey by steam in America was commenced. The trip was most interesting. The curves were passed without difficulty at a speed of fifteen miles an hour; the grades were ascended with comparative ease; the day was fine, the company in the highest spirits, and some excited gentlemen of the party pulled out memorandum books, and when at the highest speed, which was eighteen miles an hour, wrote their names and some connected sentences, to prove that even at that great velocity it was possible to do so. The return trip from the Mills — a distance of thirteen miles — was made in fifty-seven minutes. This was in the summer of 1830.

The engine undertakes to race with a car drawn by a horse.

But the triumph of this Tom Thumb engine was not altogether without a drawback. The great stage proprietors of the day were Stockton and Stokes; and on this occasion a gallant gray [horse] . . . was driven by them from town, attached to another car on the second track . . . and met the engine at the Relay House on its way back. From this point it was determined to have a race home; and, the start being even, away went horse and engine, the snort of the one and the puff of the other keeping time and tune.

At first the [horse] had the best of it, for *its* steam would be applied to the greatest advantage on the instant, while the engine had to

wait until the rotation of the wheels set the blower to work. The horse was perhaps a quarter of a mile ahead, when the safety valve of the engine lifted and the thin blue vapor issuing from it showed an excess of steam. The blower whistled, the steam blew off in vapory clouds, the pace increased, the passengers shouted, the engine gained on the horse, soon it lapped him,— the [whip] was plied — the race was neck and neck, nose and nose — then the engine passed the horse, and a great hurrah hailed the victory.

The horse has the best of it at first,

but is finally passed by the engine,

But it was not repeated, for just at this time, when the gray's master was about giving up, the band which drove the pulley which drove the blower, slipped from the drum, the safety valve ceased to scream, and the engine for want of breath began to wheeze and pant. In vain Mr. Cooper, who was his own engineman and fireman, lacerated his hands in attempting to replace the band upon the wheel; in vain he tried to urge the fire with light wood; the horse gained on the machine and passed it; and although the band was presently replaced, and steam again did its best, the horse was too far ahead to be overtaken, and came in the winner of the race.

when an accident disables the engine and the horse wins the race!

But the real victory was with Mr. Cooper, notwithstanding. He had held fast to the faith that was in him, and had demonstrated its truth beyond peradventure. All honor to his name. . . .

28. The march of population westward[1]

Significance of the settlement of the West.

The rapid settlement of the American West is one of the most striking achievements in the history of colonization. Once the people of the Atlantic states and of Europe became aware of the rich natural resources that lay beyond the Appalachians, there was a steadily increasing migration of homeseekers to this region. Every conceivable form of conveyance was used to get to the West. In the early period settlers were obliged to go West on foot, or in crude conveyances drawn by horses, or in boats carried down natural waterways by the force of the current. Later the canal greatly stimulated the westward movement, as did also the railroad. As the result of a steady use of these means of transportation, and particularly of the railroad, hordes of settlers spread westward into the Mississippi

[1] From the United States Bureau of the Census, *Statistical Atlas of the United States*. Washington, 1914; pp. 13–25.

Valley and onward to the Pacific Coast. The growth and spread of the population of the United States have been described by the Bureau of the Census in the following language:

Population of the United States in 1790.

The First Census of the United States, taken as of the first Monday in August, 1790 . . . showed the population of the thirteen States then existing, and of the unorganized territory, to be, in the aggregate, 3,929,214. This population was distributed . . . almost entirely along the Atlantic seaboard. . . . Only a very small proportion of the inhabitants of the United States, not indeed more than 5 per cent, was found west of the Appalachian Mountains. . . .

At the Second Census, that of 1800, the frontier line had advanced. . . .

The frontier line between 1800 and 1850.

During the decade from 1800 to 1810 great changes will be noted, especially the extension of sparse settlements in the interior. The hills of western New York had become almost entirely populated. The occupation of the Ohio River Valley had now become complete from its head to its mouth, with the exception of small groups below the mouth of the Tennessee. . . .

In 1830 the frontier line had a length of 5300 miles, and the aggregate area embraced between the Atlantic Ocean, the Gulf of Mexico, and the frontier line was 725,406 square miles. . . .

The frontier line which now [1850] extended around a considerable part of Texas and issued on the Gulf Coast at the mouth of the Nueces River, was 4500 miles in length. . . .

The march up the Great Plains.

In 1860 the first extension of settlement beyond the line of the Missouri River is noted. The march of settlement up the slope of the Great Plains had begun. . . .

During the decade from 1870 to 1880 . . . the first noticeable point . . . is the great extent of territory which was brought under occupation during the decade. Not only had settlement spread west over large areas in Dakota, Nebraska, Kansas and Texas, thus moving the frontier line of the main body of settlement west many scores of miles, but the isolated settlements of the Cordilleran Region and of the Pacific coast showed enormous accessions of occupied territory. . . .

[Between 1880 and 1890] the most striking fact connected with the extension of settlement . . . was the numerous additions which

were made to the settled area within the Cordilleran Region. . . . Settlements spread westward up the slope of the plains, until they joined the bodies formerly isolated in Colorado, forming a continuous body of settlement from the East to the Rocky Mountains. . . .

Extension of settlements between 1880 and 1890.

The Twelfth Census [1900] marked 110 years of growth of the United States, during which period the population increased more than twenty-one times, and the country grew from groups of settlements of less than four million people to one of the leading nations of the world, with a population of nearly 85,000,000. . . .

Summary.

The returns of the Thirteenth Census [1910] measure the growth of the United States after 120 years of development. During this period the country has grown from less than four million inhabitants to more than 90,000,000. . . . [Of a number of important countries which the Federal Census Bureau has compared with respect to population], the United States was eighth in 1800, but during the century its population increased so rapidly that it passed Spain, Italy, the United Kingdom, Austria-Hungary, France and Germany, and, at the census of 1880, and since that census, has been second, standing just below Russia. . . .

29. Conquering the land with farm machinery [1]

Necessity of labor-saving machinery in the West

One of the most significant facts about the westward movement is that the settlers came into contact with more natural wealth than they could make immediate use of. Settlers were relatively few, and land, for example, existed in great abundance. As the result of the desire to utilize the vast tracts which came under their control, ingenious Americans were stimulated to invent machines which would do the work of many men. The improvement of farm machinery in this country in the last century is one of the most remarkable achievements in industrial history. The way in which farm machinery increased the productiveness of the farmer is described in the following extract from the *Report* of the United States Commissioner of Agriculture for the year 1872:

There can be no doubt that the saving to the country from . . .

[1] From the United States Commissioner of Agriculture, *Report* for the year 1872. Washington, 1874; pp. 284, 286–290.

Improvements in the plow.

improvements in the plow, within the last century, amounts to many millions of dollars a year in the cost of teams, and some millions in the cost of plows, or that the aggregate of crops has been increased by them many millions of bushels. The plow has also been modified to adapt it to a much greater variety of soils. In the mode of manufacture, too, a vast improvement has taken place. Half a century ago it was made sometimes on the farm, sometimes by the village blacksmith. . . . The work is now concentrated in fewer establishments, which make it a specialty. . . .

The most important of modern agricultural inventions.

But perhaps the most important of modern agricultural inventions are the grain-harvesters, the reapers, the mowers, the threshers, and the horse-rakes. The sickle, which was in almost universal use till within a very recent date, is undoubtedly one of the most ancient of all our farming implements. Reaping by the use of it was always slow and laborious, while from the fact that many of our grains would ripen at the same time, there was a liability of loss before they could be gathered, and practically there was a vastly greater loss from this cause than there is at the present time. It is not, therefore, too much to say that the successful introduction of the reaper into the grain fields of this country has added many millions of dollars to the value of our annual harvests, by enabling us to secure the whole product, and by making it possible for the farmer to increase the area of his wheat fields, with a certainty of being able to gather the crop. . . .

Activity of American inventors of farm machinery.

The first trial of reapers, partaking of a national character, was held under the auspices of the Ohio State Board of Agriculture in 1852. . . . The inventive genius of the country was stimulated by [such trials as this] to an extraordinary degree of activity. Patents began to multiply rapidly. Local trials took place every year in various parts of the country to test the merits of the several machines. The great International Exposition at Paris in 1855 was an occasion not to be overlooked . . . and the American machines, imperfect as they were at that time, were brought to trial there in competition with the world. The scene of this trial was on a field of oats about forty miles from Paris, each machine having about an acre to cut. Three machines were entered for the first trial, one American, one English, and a third from Algiers. . . . The American machine did

The victory at Paris in 1855.

its work in twenty-two minutes, the English in sixty-six and the Algerian in seventy-two. . . .

Improvements in haying devices.

[Numerous inventions have decreased the amount of labor necessary to make hay.] To these appliances for lightening and shortening the labors of haying, have been added many forms of the horse-fork for unloading and mowing away hay in the barn or upon the stack. Few machines have met with greater popular favor than the horse pitchfork, for it saves not only the most violent strain upon the muscles, but economizes time, which, in the hurrying of haying, is often of the utmost importance. . . .

The modern American thresher,

While these vast improvements have been going on with the other implements of the farm, the improvement in machines for threshing grain has been rapidly progressing, till they have reached a wonderful degree of perfection. Most of us can remember when the old-fashioned flail was heard upon almost every barn floor in the country. Here and there was a case where the grain was trodden out by cattle, with an amazing waste of time and labor. Compare these slow methods with the process, widely known at the present day, by which a horse-power or steam-power thresher not only separates the grain, but winnows it, measures it, bags it ready for market, and carries away the straw to the stack at the same operation, and all with a rapidity truly astonishing.

and its victory at the Paris Exposition of 1855.

As early as the Paris Exposition of 1855 the victory was won by an American machine. To ascertain the comparative rapidity and economy of threshing, six men were set to work at threshing with flails. In one hour they threshed thirty-six liters of wheat. In the same time Pitt's American machine threshed 740 liters; Clayton's English machine threshed 410 liters; Duvoir's French machine threshed 250 liters; Pinet's French machine threshed 150 liters. Speaking of this trial, a French journal said: "This American machine literally devoured the sheaves of wheat. The eye cannot follow the work which is effected between the entrance of the sheaves and the end of the operation. It is one of the greatest results which it is possible to attain. The impression which the spectacle produced on the Arab chiefs was profound." Good as that machine was at that time, it has been greatly improved since then. . . .

30. The factory system: An example[1]

A typical result of American industrial development is the factory system.

We are approaching the end of our survey of American industrial development. The rich natural resources of the continent of North America we saw pass from the control of the Indians to the control of European colonists. The relatively crude processes of colonial days were in turn superseded by methods which have effected a revolution in industry. The development of transportation, the peopling of the vast areas westward beyond the Appalachians, and the utilization of natural resources by means of machinery, all these we have touched upon as elements in the development of American industry. We have now to notice a typical result of the completed Industrial Revolution, namely, the factory system. An example of the factory system is supplied by Miss Van Hoesen in the following description of a cotton mill:

Description of a cotton mill: The raw cotton arrives,

We shall take for the purpose of our study a cotton mill in a New England town, where cloth is made from the raw cotton shipped from the fields of the Southern States. Let us begin with the cotton as it comes to the mill. . . .

is mixed,

The cotton arrives in big bales, which are opened in the factory, and the loose cotton from many bales is mixed in order to get a uniform quality. The mixing may be done by hand, but it is often done in a machine called a "bale breaker," which at the same time begins the cleaning of the fiber. The cotton next passes through machines

cleaned,

called "scutchers," where it is beaten in order to remove all loose dirt. It is then put into machines called "pickers," which continue cleaning, and deliver it in sheets like cotton batting. The cleaning is completed by a machine known as a "carder." . . .

drawn into slivers,

The fibers of cotton which have been carded and combed are now taken to a "drawing machine" where from four to eight slivers are drawn together. This process of arranging the fibers and drawing them out into finer and more even slivers is carried out by a number of machines called "drawing frames" which keep pulling out the card sliver until it is a slender collection of fibers ready to be twisted into a thread by the spinning machines. . . .

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series B, pp. 26–29.

and made into thread.

[Then the spinning machines] take the fibers that have been drawn out by the drawing frames and twist them into cotton thread. The improvements which have been made in recent years may be understood when it is stated that a single mill operator can at the present time take care of 125 spindles in operation. In recent years, too, the rate at which the spindles rotate has been increased until it has reached what is regarded as the probable limit — namely, 10,000 turns a minute. The contrast between the older devices and those now in use is very impressive if one remembers that in the early days the woman turned her spindle with a foot treadle, and used a single spindle to which she fed the fibers by hand.

Weaving is done by a machine

When the thread has been made by the spindles, it is wound on bobbins and carried to the weaving machines, where it is turned into cloth. We leave now the spinning department of the factory and go to an entirely different set of machines. Indeed, the spinning and weaving are usually done in entirely different buildings, or even in different factories.

called a "loom."

The machine that does the weaving is called a "loom." It interlaces the threads with each other, one set running at right angles to the other. Anyone who looks at an ordinary piece of cloth will see that there are two sets of threads. One set is known as the "warp" and runs lengthwise of the cloth. The other set is known as the "weft" or "filling." . . . The parts of the loom are designed to hold the threads in such position that they can be interlaced and driven together until the closely woven threads come out as cloth.

The work of the shuttle.

One part of the weaving machinery which immediately attracts the eye of the visitor is the little shuttle which carries the weft back and forth between the threads that make up the warp. The warp appears as a series of parallel threads held in position while the shuttle plays back and forth between them. The alternate threads of the warp are held in position by a part of the loom which is known as the "heddle." This part of the loom can be moved up and down, so that each alternate thread will at one moment be above the shuttle as it travels and the next moment below. The heddle is raised and lowered as the shuttle is thrown back and forth between the threads of the warp.

The dominating position of machinery in the cotton mill.

Formerly the shuttle was thrown by hand, but in the automatic looms used in modern factories, all of this work is done by machinery. Here again the single workman can manage a number of machines. His chief business is to see that the threads do not break and that the machine is constantly supplied with the threads that go into the cloth. Indeed, it is no longer necessary in the most completely equipped factories for the operator to watch for breaking threads, because the machinery has been made automatic and will stop whenever anything breaks. His business is merely to see that the machine is fed with thread. A single operator can attend to as many as twenty-four, or even twenty-eight, automatic looms. . . .

Questions on the foregoing Readings

1. Under what circumstances might it be uneconomical for a factory to turn out a large product?
2. What did Adam Smith say as to the relation between the market and the division of labor?
3. What sorts of industry can be carried on nowhere but in a great town?
4. Explain the relation of the division of labor to water-carriage.
5. What is the relation between water-carriage and the market?
6. Under what circumstances is the large-scale manufacture of commodities practicable?
7. When was the Erie Canal opened to traffic?
8. What effect did the opening of this canal have upon the cost of transportation?
9. What effect did the opening of this canal have upon canal-building in other parts of the country?
10. Account for the failure of most of the canals which were built subsequent to the opening of the Erie Canal.
11. What was Mr. Peter Cooper's attitude toward the problem of adapting steam for use on American roads?
12. Describe the first journey by steam in America.
13. Describe the race between the engine built by Mr. Cooper and the car drawn by a horse.
14. Name some methods employed by settlers in reaching the West.
15. Describe the extension of the frontier line between 1800 and 1850.
16. When did the march up the Great Plains begin?
17. Describe the extension of settlements between 1880 and 1890.
18. What was the importance of labor-saving machinery in the West?
19. Describe some improvements in the plow.
20. Outline the improvement of the reaper.

21. Discuss the victory of the American thresher at the Paris Exposition of 1855.
22. Name a typical result of the completed Industrial Revolution.
23. Describe the mixing and cleaning of raw cotton in a modern cotton factory.
24. How is the cotton made into thread?
25. Describe the process of weaving in a modern cotton mill.

CHAPTER VI

OCCUPATIONS OF THE AMERICAN PEOPLE

31. Division of labor means specialization[1]

The division of labor leads to an increase in the number of occupations.

A proper understanding of the occupations of the American people brings us again to the division of labor. In an industrial society so primitive as to evidence little or no division of labor, the number of occupations would be relatively small. That is to say, if most persons were obliged to produce all of the things which they personally consumed, there would be a tendency for everyone to be doing the same sort of thing. Since all individuals stand in need of such things as food, clothing, shoes, and house room, practically everybody would be producing all of these necessities. Everyone would tend to ply a generalized occupation, much like the occupation of his neighbor. It is only when men begin to divide up their labor, and thus to become specialists, that their occupations differentiate. The following extract from Adam Smith's *Wealth of Nations* illustrates the way in which the division of labor encourages specialization and thus enlarges the number of occupations:

Pin-making illustrates the division of labor.

To take an example, therefore, from a very trifling manufacture, but one in which the division of labor has been very often taken notice of, the trade of the pin-maker; a workman not educated to the business, nor acquainted with the use of the machinery employed in it, could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty.

But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater part are likewise peculiar trades.

One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head;

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. Book I, chapter i.

to make the head requires two or three distinct operations; to put it on is a peculiar business; to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them.

Pin-making divided into eighteen distinct operations.

I have seen a small manufactory of this kind where ten men only were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently [provided] with the necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day. There are in a pound upwards of four thousand pins of a middling size. Those ten persons, therefore, could make among them upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, certainly, not the two hundred and fortieth, perhaps not the four thousand eight hundredth part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations.

Increased productivity the result.

In every art and manufacture, the effects of the division of labor are similar to what they are in this very trifling one; though, in many of them, the labor can neither be so much subdivided, nor reduced to so great a simplicity of operation. The division of labor, however, so far as it can be introduced, occasions, in every art, a proportionable increase of the productive powers of labor.

The effects of the division of labor are similar in all trades.

The separation of different trades and employments from one another seems to have taken place in consequence of this advantage. This separation, too, is generally carried furthest in those countries which enjoy the highest degree of industry and improvement; what is the work of one man in a rude state of society, being generally that of several in an improved one. In every improved society, the

The advantages of the division of labor lead to the separation of trades and employments,

farmer is generally nothing but a farmer; the manufacturer nothing but a manufacturer. The labor, too, which is necessary to produce any one complete manufacture, is almost always divided among a great number of hands. How many different trades are employed in each branch of the linen and woolen manufactures, from the growers of the flax and the wool, to the bleachers and smoothers of the linen, or to the dyers and dressers of the cloth!

though this is more true of manufacturing than of agriculture.

The nature of agriculture, indeed, does not admit of so many subdivisions of labor, nor of so complete a separation of one business from another, as manufactures. It is impossible to separate so entirely the business of the grazier from that of the corn farmer, as the trade of the carpenter is commonly separated from that of the smith. The spinner is almost always a distinct person from the weaver; but the ploughman, the harrower, the sower of the seed, and the reaper of the corn, are often the same. The occasions for those different sorts of labor returning with the different seasons of the year, it is impossible that one man should be constantly employed in any one of them. . . .

32. Effect of machinery upon occupations[1]

The extensive use of machinery has increased the tendency to specialization.

The preceding account of the division of labor was written by Adam Smith at a period in which the Industrial Revolution in England had scarcely begun. But even in that day, as we have seen, a considerable degree of specialization had resulted from the division of labor between men on the one hand, and between men and simple tools and machines on the other. With the progress of the Industrial Revolution, a greater and greater use of machinery has characterized industry. The tendency for men to contrive machines to do more and more types of work has made many occupations very highly specialized. Some of the effects of machinery upon occupations are described by the English economist, Alfred Marshall, in the following selection:

A general rule.

We are thus led to a general rule, the action of which is more prominent in some branches of manufacture than in others, but which applies to all. It is, that any manufacturing operation that can be reduced to uniformity, so that exactly the same thing has to

[1] From Alfred Marshall, *Principles of Economics*. The Macmillan Co., London, 1907. Fifth edition. Vol. I, pp. 255–256, 259–261.

be done over and over again in the same way, is sure to be taken over sooner or later by machinery. There may be delays and difficulties; but if the work to be done by it is on a sufficient scale, money and inventive power will be spent without stint on the task till it is achieved. . . .

Machinery furthers the division of labor,

Machinery constantly supplants and renders unnecessary that purely manual skill, the attainment of which was, even up to Adam Smith's time, the chief advantage of the division of labor. But this influence is more than countervailed by its tendency to increase the scale of manufactures and to make them more complex; and therefore to increase the opportunities for division of labor of all kinds. . . .

as, for example, in the printing trade.

The printing trade affords [an] instance of the way in which an improvement of machinery and an increase in the volume of production causes an elaborate subdivision of labor. Everyone is familiar with the pioneer newspaper editor of the newly settled districts of America, who sets up the type of his articles as he composes them; and with the aid of a boy prints off his sheets and distributes them to his scattered neighbors. When, however, the mystery of printing was new, the printer had to do all this for himself, and in addition to make all his own appliances. These are now provided for him by separate "subsidiary" trades, from whom even the printer in the backwoods can obtain everything that he wants to use. But in spite of the assistance which it thus gets from outside, a large printing establishment has to find room for many different classes of workers within its walls. To say nothing of those who organize and superintend the business, of those who do its office work and keep its stores, of skilled "readers" who correct any errors that may have crept into the "proofs," of its engineers and repairers of machinery, of those who cast, and who correct its stereotype plates; of the warehousemen and the boys and girls who assist them, and several other minor classes; there are the two great groups of the compositors who set up the type, and the machinists and pressmen who print impressions from them. Each of these two groups is divided into many smaller groups, especially in the large centers of the printing trade. . . .

These barriers between minute subdivisions of a trade count for a great deal in many descriptions of the modern tendency toward specialization of industry; and to some extent rightly, because

Multiplication of thin lines of division which can be passed without great difficulty.

though many of them are so slight that a man thrown out of work in one subdivision could pass into one of its neighbors without any great loss of efficiency, yet he does not do so until he has tried for a while to get employment in his old lines; and therefore the barriers are as effective as stronger ones would be so far as the minor fluctuations of trade from week to week are concerned. But they are of an altogether different kind from the deep and broad partitions which divided one group of medieval handicraftsmen from another, and which caused the lifelong suffering of the handloom-weavers when their trade had left them.

Machinery increases the demand for faculties of a high order

In the printing trades . . . we see mechanical and scientific appliances attaining results that would be impossible without them; at the same time that they persistently take over work that used to require manual skill and dexterity, but not much judgment; while they leave for man's hand all those parts which do require the use of judgment, and open all sorts of new occupations in which there is a great demand for it. Every improvement and cheapening of the printer's appliances increases the demand for the judgment and discretion and literary knowledge of the "reader," for the skill and taste of those who know how to set up a good title-page. . . . It increases the demand for the gifted and highly trained artists who draw or engrave on wood and stone and metal. . . . And again, it tends to increase the work of photographers and electrotypers, and stereotypers, of the makers of printer's machinery, and many others. . . .

33. Effect of geography upon occupations[1]

Geography a third influence affecting occupations.

We have seen that the nature and number of the occupations of an industrial people have been strongly influenced by the division of labor among men on the one hand, and among men and machines on the other. We have now to notice a third factor which has had its effect upon the occupations of the American people. This is the influence of geography. Different industries have tended to localize in different parts of the United States, so that the occupations of particular groups of people are more or less dependent upon the nature of

[1] From the *Twelfth Census of the United States*. Washington, 1902. Report on Manufactures, Part I; pp. ccx–ccxiv.

their physical environment. The following extract is from the Report of Manufactures contained in the *Twelfth Census:*

The localization of several [industries in the United States is affected by nearness to materials, as, for example,] the paper industry near the spruce and poplar forests; the tanning industry near the chief tanning materials; slaughtering and meat packing near the stock-raising centers; the manufacture of agricultural implements near the great hardwood forests and the iron-producing centers; the pottery industry near its clay; the recent growth of cotton manufacturing near the cotton fields; and the beginnings of shoe manufacturing in Massachusetts near the supply of leather. . . . The influence of [fuel] is very marked in the localization of the glass industry near the natural gas wells, and in the iron industry in Pennsylvania and Alabama.

The localization of industries is affected by nearness to materials,

[Nearness to markets] is an important factor in the localization of all industries, its influence upon the localization of manufacturing being especially important. Nearly forty-eight per cent of the manufacturing of the country is in Massachusetts, Connecticut, Rhode Island, New York, New Jersey, and Pennsylvania, — not so much because there is better water power or more abundant materials for manufactures in these states, but very largely because the greatest population was there when the manufacturing developments of the country began. The influence of the market in causing a migration of manufacturing in general may be observed by comparing the movement of the center of manufactures and of the center of population since 1850. . . . The center of manufactures has moved steadily westward, following roughly the movement of the center of population. . . .

by nearness to markets,

[In the past, water power has been] a very important advantage, but to-day its influence upon localization of industries is not very apparent. Naturally, this influence was greatest before the days of steam. All industries grouped themselves along those waterways which had a good natural fall. This early impetus . . . has tended to perpetuate such industries in their original locations, even when steam has become more important as a source of power than water. . . .

by the presence of water power,

[A favorable climate] has also an influence which is discernible in the localization of industries. The influence of a moist climate, which

and by climate.

is also even throughout the day, upon cotton spinning in New Bedford and Fall River, Massachusetts, [should be noted.] More often, however, the advantage of a favorable climate makes itself felt through its invigorating effect on labor. . . .

Industries may localize in a city or town chiefly because of the chance establishment there of a pioneer concern.

[An industry may localize in a particular city or town primarily because a pioneer establishment happened to start there, without regard to the geographical advantages of the site. For example, Lynn, Massachusetts, has become a center of the shoe industry chiefly because a few colonial shoemakers chanced to settle in Lynn. Later, they acquired a reputation for making good shoes, and Lynn became so well known as a producer of good shoes that other shoe manufacturing establishments sprang up in this city.

The rise of economic advantages.

But though an industry may simply chance to be established in a locality, it is not long before] certain decided economic advantages emerge. Workmen, skilled in the specialty for which the center begins to be known, flock there and wait their chance "to be taken on at one of the mills." . . . In a specialized community of this sort, the contact of workmen and employers with each other results in a mutual improvement in manufacturing methods. Laborers "talk shop" more or less when not at work, and the devices adopted in one establishment for making the work easier are soon adopted in all. . . .

In the course of time another advantage arises in such a specialized center, *i.e.* the possibility of subdividing the processes of manufacture among several establishments. . . . In the Massachusetts shoe cities, for example, there are establishments which make only uppers, and others which make only "findings" (counters, shanks, heel stiffeners, etc.). Soon, also, subsidiary industries spring up for the supply of the special machinery and tools required. . . .

Conclusion.

Thus a town's specialization increases its supply of specialized labor and specialized machinery. These in turn react to increase the specialization of the town. Success breeds success in an almost geometrical ratio. Cause and effect propel each other in a continually expanding circle, the self-created local advantages becoming in time so powerful that they entirely neutralize the greater general advantages of location which other localities may have come to possess. . . .

34. Occupations in the American city[1]

Having traced some of the influences which affect the number and character of the occupations of the American population, let us now inquire into the specific callings which our people follow. We may notice, first of all, that although particular industries often tend to concentrate in particular cities or towns, the typical American city — and indeed, even the most highly specialized city — illustrates a great diversity of occupations. This diversity may be illustrated by the list of occupations in Buffalo, New York, and in Birmingham, Alabama, as prepared for the 1920 census of the United States:

Diversity of occupations in the American city illustrated by the 1920 census statistics for Buffalo, New York, and

PRINCIPAL OCCUPATIONS, BUFFALO, NEW YORK, 1920

Occupation	*Male*	*Female*
All occupations	**165,362**	**49,981**
Agents, canvassers, and collectors	1,286	132
Bakers	914	36
Bankers, brokers, and money lenders	842	24
Barbers, hairdressers, and manicurists	1,077	237
Blacksmiths, forgemen, and hammermen	1,412	—
Bookkeepers, cashiers, and accountants	2,366	3,134
Brick and stone masons	1,091	—
Carpenters	5,688	—
Chauffeurs	2,716	5
Clerks, except clerks in stores	9,498	5,637
Clerks in stores	1,266	1,728
Commercial travelers	1,017	10
Compositors, linotypers, and typesetters	1,041	40
Conductors, steam railroad	828	—
Designers, draftsmen, and inventors	672	41
Draymen, teamsters, and expressmen	2,060	1
Dressmakers and seamstresses, not in factories	1	1,728
Electricians and electrical engineers	2,420	—
Engineers, stationary	1,986	—
Firemen, except locomotive and fire department	1,144	—
Foremen and overseers, manufacturing	3,094	291
Inspectors, steam railroad	784	2
Insurance agents and officials	965	34
Laborers, blast furnaces and steel mills	2,309	23

[1] From the *Fourteenth Census of the United States*. Advance sheets on principal occupations in American cities, issued in 1921 and 1922.

Occupation	*Male*	*Female*
Laborers, building, general, and not specified	2,149	38
Laborers, steam railroad	2,396	50
Lawyers, judges, and justices	746	13
Locomotive engineers	1,362	—
Locomotive firemen	1,019	—
Machinists, millwrights, and toolmakers	10,501	—
Managers and superintendents	1,818	47
Manufacturers and officials	1,757	88
Mechanical engineers	504	—
Molders, founders, and casters, metal	2,103	—
Musicians and teachers of music	563	486
Painters, glaziers, and varnishers, building	1,872	—
Physicians and surgeons	780	52
Plumbers and gas and steam fitters	1,922	—
Policemen	1,295	4
Retail dealers	7,566	829
Salesmen and saleswomen	5,713	2,734
Semiskilled operatives, automobile factories	2,025	141
Semiskilled operatives, blast furnaces and steel mills	1,434	40
Semiskilled operatives, car and railroad shops	1,114	19
Servants and waiters	1,774	6,222
Stenographers and typewriters	385	5,085
Switchmen, flagmen, and yardmen	1,865	2
Tailors and tailoresses	1,228	495
Teachers, school	389	3,070
Telephone operators	60	1,491
Tinsmiths and coppersmiths	1,122	—
Trained nurses	49	1,178

PRINCIPAL OCCUPATIONS, BIRMINGHAM, ALA., 1920

Birmingham, Alabama.

Occupation	*Male*	*Female*
All occupations	**59,070**	**20,082**
Agents, canvassers, and collectors	586	72
Barbers, hairdressers, and manicurists	482	333
Blacksmiths, forgemen, and hammermen	476	—
Bookkeepers, cashiers, and accountants	1,103	731
Brick and stone masons	463	—
Carpenters	1,870	—
Chauffeurs	547	5
Clergymen	399	—
Clerks (except in stores)	2,334	548
Clerks in stores	526	293

Occupation	*Male*	*Female*
Coal-mine operatives	2,294	10
Commercial travelers	799	16
Draymen, teamsters, and expressmen	1,058	4
Dressmakers and seamstresses (not in factories)	1	566
Electricians and electrical engineers	809	—
Foremen and overseers (manufacturing)	668	15
Insurance agents and officials	572	18
Laborers, blast furnaces and steel mills	4,923	74
Laborers, building, general, and not specified	797	39
Laborers, steam railroad	1,481	30
Laborers, porters and helpers in stores	698	34
Launderers and laundresses (not in laundries)	102	4,243
Laundry operatives	122	590
Lawyers, judges, and justices	328	4
Locomotive engineers	554	—
Locomotive firemen	550	—
Machinists, millwrights, and toolmakers	2,198	—
Managers and superintendents (manufacturing)	469	7
Manufacturers and officials	364	9
Midwives and nurses (not trained)	38	452
Molders, founders and casters	619	—
Painters, glaziers, and varnishers (building)	455	—
Physicians and surgeons	382	4
Plumbers and gas and steam fitters	516	—
Real-estate agents and officials	394	18
Retail dealers	2,628	168
Salesmen and saleswomen	2,400	1,019
Semiskilled operatives, blast furnaces and steel mills	993	28
Servants and waiters	1,071	4,952
Switchmen and flagmen (steam railroad)	654	1
Stenographers and typewriters	155	1,388
Teachers, school	147	938
Telephone operators	32	396
Trained nurses	9	36

35. Occupational groups in the United States[1]

Occupations classified according to general type.

The foregoing extracts from the 1920 Census indicate something of the diversity of occupations within particular cities. Let us notice, now, the occupations of the people of the United States considered as a whole. If we classify the employments of the American people

[1] From the *Thirteenth Census of the United States*. Washington, 1910. Vol. IV, p. 53.

according to general type, we may speak of occupations as falling under one of the following heads: agriculture, forestry, and animal husbandry; extraction of minerals; manufacturing and mechanical pursuits; transportation; trade; public service; professional service; domestic and personal service; and clerical work. The following is the Census Bureau's enumeration of occupations falling under these heads:

NUMBER OF PERSONS TEN YEARS OF AGE AND OVER ENGAGED IN PRINCIPAL OCCUPATIONS, 1910

	Occupation	*Total*
Number of persons employed in agriculture and allied industries,	**All occupations**	**38,167,336**
	Agriculture, forestry, and animal husbandry	**12,659,203**
	Dairy farmers	61,816
	Dairy farm laborers	35,014
	Farmers	5,865,003
	Farm laborers	5,975,057
	Fishermen and oystermen	68,275
	Gardeners, florists, fruit growers, and nurserymen	139,255
	Garden, greenhouse, orchard, and nursery laborers	133,927
	Lumbermen, raftsmen, and woodchoppers	161,268
	Stock herders, drovers, and feeders	62,975
	Stock raisers	52,521
	All others in this division	104,092
mining,	**Extraction of minerals**	**964,824**
	Coal mine operatives	613,924
	Gold and silver mine operatives	55,436
	Other mine operatives	136,125
	Quarry operatives	80,840
	All others in this division	78,499
manufacturing and mechanical industries,	**Manufacturing and mechanical industries**	**10,658,881**
	Apprentices	118,964
	Bakers	89,531
	Blacksmiths, forgemen, and hammermen	240,519
	Brick and stone masons	169,402
	Builders and building contractors	174,422
	Carpenters	817,120
	Compositors, linotypers, and typesetters	127,589
	Dressmakers and seamstresses (not in factory)	449,342
	Electricians and electrical engineers	135,519

Occupation	*Total*	
Engineers (stationary)	231,041	
Firemen (except locomotive and fire department)	111,248	
Foremen and overseers (manufacturing)	175,098	
Laborers:		
Clay, glass, and stone industries	154,826	
Food industries	82,015	
General and not specified laborers	869,478	
Helpers in building and hand trades	65,431	
Lumber and furniture industries	317,244	
Metal industries	527,714	
Textile industries	87,146	
All other industries	385,852	
Machinists, millwrights, and toolmakers	488,049	
Managers and superintendents (manufacturing)	104,210	
Manufacturers and officials	256,591	
Milliners and millinery dealers	127,906	
Molders, founders, and casters (metal)	120,900	
Painters, glaziers, varnishers, enamelers, etc.	337,355	
Plumbers and gas and steam fitters	148,304	
Semiskilled operatives:		
Cigar and tobacco factories	151,519	
Clay, glass, and stone industries	88,628	
Clothing industries	144,607	
Food industries	88,834	
Lumber and furniture industries	167,490	
Metal industries	438,063	
Printing and publishing	67,469	
Shoe factories	181,010	
Textile industries	650,260	
All other industries	463,655	
Sewers and sewing machine operators (factory)	291,209	
Shoemakers and cobblers (not in factory)	69,570	
Tailors and tailoresses	204,608	
Tinsmiths and coppersmiths	59,833	
All others in this division	679,310	
Transportation	**2,637,671**	
Brakemen	92,572	transportation,
Conductors (steam railroad)	65,604	
Conductors (street railroad)	56,932	
Draymen, teamsters, and expressmen	408,469	
Foremen and overseers (railroad)	69,933	
Hostlers and stable hands	63,388	

	Occupation	*Total*
	Laborers (railroad, steam and street)	570,975
	Laborers (road and street building and repairing)	180,468
	Locomotive engineers	96,229
	Locomotive firemen	76,381
	Longshoremen and stevedores	62,857
	Mail carriers	80,678
	Motormen	59,005
	Switchmen, flagmen, and yardmen	85,147
	Telegraph operators	69,953
	Telephone operators	97,893
	All others in this division	501,187
	Trade	**3,614,670**
trade,	Bankers, brokers, and money lenders	105,804
	Clerks in stores	387,183
	Commercial travelers	163,620
	Deliverymen	229,619
	Insurance agents and officials	97,964
	Laborers in coal and lumber yards, warehouses, etc.	81,123
	Laborers, porters, and helpers in stores	102,333
	Real estate agents and officials	125,862
	Retail dealers	1,195,029
	Salesmen and saleswomen	921,130
	Wholesale dealers, importers, and exporters	51,048
	All others in this division	153,955
	Public service (not elsewhere classified)	**459,291**
public	Guards, watchmen, and doorkeepers	78,271
service,	Laborers (public service)	67,234
	Officials and inspectors (city and county)	52,254
	Officials and inspectors (state and United States)	52,926
	Policemen	61,980
	Soldiers, sailors, and marines	77,153
	All others in this division	69,473
	Professional service	**1,663,569**
professional	Actors	28,297
service,	Artists, sculptors, and teachers of art	34,104
	Civil and mining engineers and surveyors	58,963
	Clergymen	118,018
	Lawyers, judges, and justices	114,704
	Musicians and teachers of music	139,310
	Physicians and surgeons	151,132
	Teachers	599,237

Occupation	*Total*	
Trained nurses	82,327	
All others in this division	337,477	
Domestic and personal service	**3,772,174**	
Barbers, hairdressers, and manicurists	195,275	domestic and personal service,
Bartenders	101,234	
Boarding and lodging house keepers	165,452	
Charwomen and cleaners	34,034	
Hotel keepers and managers	64,504	
Housekeepers and stewards	189,273	
Janitors and sextons	113,081	
Laborers (domestic and professional service)	53,480	
Launderers and laundresses (not in laundry)	533,697	
Laundry operatives	111,879	
Midwives and nurses (not trained)	133,043	
Porters (except in stores)	84,128	
Restaurant, café, and lunch-room keepers	60,832	
Saloon keepers	68,215	
Servants	1,572,225	
Waiters	188,293	
All others in this division	103,529	
Clerical occupations	**1,737,053**	
Agents, canvassers, and collectors	105,127	and clerical work.
Bookkeepers, cashiers, and accountants	486,790	
Clerks (except clerks in stores)	720,408	
Messenger, bundle, and office boys	108,035	
Stenographers and typewriters	316,693	

36. Interdependence of occupational groups[1]

Specialization means interdependence.

The division of labor among men, the extensive use of machinery, the influence of geographic conditions, these and other factors have operated to divide the American people into a large number of occupations. Great advantages have resulted from this specialization, but such a development evidences disadvantages as well. Specialization means that the typical individual produces a particular commodity or service, and that he relies upon other specialists to provide him with goods and services which he himself does not produce. Thus specialization means interdependence, and this means that

[1] From A. P. Andrew, *The Influence of the Crops upon Business in America. Quarterly Journal of Economics.* Vol. XX, 1905–1906, pp. 325–328.

an injury to the members of one occupational group may embarrass other groups as well. In the following selection an American economist, Professor A. P. Andrew, points out the ways in which other occupational groups are likely to be affected by the success or failure of the farming or crop-producing group:

The size of the crops exerts an influence over the community's power to purchase other goods.

In the first place, the size of the crops exerts a considerable influence over the community's power to purchase other goods. . . . If . . . on account of a plentiful harvest, the prices of food and of certain sorts of clothing are reduced . . . people in general outside of agricultural pursuits will have more to spend upon other things. A bountiful harvest is thus significant for almost all of the occupations in a community. . . . On the other hand, when the agricultural output fails, the farming population is at once obliged to retrench, to forego contemplated improvements on their farms, to curtail many of the usual or expected expenditures. . . . If, too, the prices of breadstuffs and meats rise, many of the rest of the community will have to devote a part of what they are accustomed to spend upon other things, to the purchase of food. They will have to abstain from some of their usual purchases. . . . At such times, then, not only will the industries which produce primarily for the farmers feel the pinch of reduced consumption, but other industries as well, which produce objects that in ordinary times are consumed by the masses of men. . . .

Effect of the size of the crop upon the solvency of the farming and allied groups.

In the second place, the very solvency of a large part of the agricultural population, and of those connected by business relations with them, depends to a considerable degree upon the outcome of the year's harvest. Whether or not the farmer will be able to repay loans which he has contracted, whether or not he will be able to settle his bills with tradesmen and dealers, and whether or not he can pay for his agricultural machinery and farm improvements, will in many cases be decided by the size of the crop. If the crop fails, his various creditors, the bankers who lent him money . . . the shopkeepers from whom he has bought his supplies, and any others to whom he is indebted, will either have to wait, or, if they force a settlement, will not improbably suffer losses. If these delinquencies occur upon too wide a scale, the failure in agriculture may be propagated into other fields, and bankruptcies among bankers, dealers, and manufacturers may ensue. . . .

Significance of the harvests to the transportation interests.

Again, the size of such crops as are not consumed in the locality of their production is of great significance for the transportation interests. One has only to observe the fluctuations in railway earnings month by month during the course of any normal year to realize how important a factor the harvests are in railway affairs. . . . A bumper crop in the case of a commodity like wheat, which is so largely consumed at a long distance from the place of its production, is . . . a source of great profit to the railroads concerned, while a poor crop means diminished traffic and reduced earnings.

Effect of the size of certain crops upon manufacturing.

Finally, the success or failure of certain crops is also of significance for those industries into which the crop enters as a raw material. A failure of the wheat crop will obviously depress the milling industry, and a failure of the cotton crop will curtail the earnings of the cotton factories, not only those in the vicinity of the cotton-growing states, but those in New or old England as well. A failure of the corn crop similarly will diminish the profits of cattle raising, [and] may work injury to the packing interests. . . .

Questions on the foregoing Readings

1. Under what circumstances would there be a small number of occupations in a community?
2. Illustrate, with reference to pin-making, the way in which the division of labor necessitates specialization.
3. Illustrate, with reference to pin-making, the way in which specialization increased the productivity of the individual.
4. Why is the division of labor less completely worked out in agriculture than in manufacturing?
5. How does machinery further the division of labor?
6. Show how the use of machinery may create in industry numerous barriers which can be passed without great difficulty.
7. Explain, with reference to the printing trades, how machinery may increase the demand for faculties of a high order.
8. Explain the importance of nearness to materials in the localization of industries.
9. What effect has nearness to markets upon the localization of industries?
10. What influence does water power exert upon the location of industries?
11. Explain the manner in which economic advantages may follow upon the chance establishment of an industry in a particular city.
12. Name some of the more important occupations listed in the 1920 Census for the city of Buffalo, New York.

13. Compare the list of occupations for Buffalo with the list of occupations for Birmingham, Alabama.
14. Name some occupations which the Census Bureau classifies under the head of "agriculture, forestry, and animal husbandry."
15. What are some of the more numerous subdivisions of the group classified by the Census Bureau as "manufacturing and mechanical industries"?
16. Name some occupations having to do with transportation.
17. What occupations does the term "trade" include?
18. Name the chief occupations listed under the head of "professional service."
19. What occupations are included in the term "domestic and personal service"?
20. Name several types of occupations which may be called "clerical."
21. Explain the statement that "specialization means interdependence."
22. What effect has the size of the crops upon the community's power to purchase goods?
23. What is meant by saying that the outcome of the year's harvest affects the solvency of a large part of the agricultural population, and of those connected by business relations with that population?
24. Explain the significance of the harvests to the transportation interests.
25. What is the effect of the size of certain crops upon manufacturing?

CHAPTER VII

METHODS OF HANDLING BUSINESS

37. The individual enterpriser[1]

In modern industry business organization requires the services of specialists.

From the preceding chapter it should be clear that American industry requires the services of millions of individuals, and that these individuals are distributed among a large number of occupations. A question which may very well arise here is, *By what means are these numerous persons coördinated and directed?* Or, it might well be asked, *Who sees to it that these specialists work together effectively?* A partial answer to both of these questions is that business enterprises are controlled and directed by individuals, or groups of individuals, who make it their *special function* to organize the other agents of production. The significance of the forms of business organization will perhaps appear most clearly if we begin by pointing out that in colonial times businesses were so small as most often to be under the direction of one person, whom we may call an individual enterpriser. The following description of early shoe manufacture in Lynn, Massachusetts, will illustrate this method of handling business:

The beginnings of shoe manufacture in Lynn, Mass.

It was in 1750 that a Welsh shoemaker, named John Adam Dagyr, settled in Lynn. He was a remarkably skilful workman, and took great pains to instruct others. He was an enthusiast, in his way, and became noted far and near as "the celebrated shoemaker of Essex." It is often curious and not unprofitable to trace in a community the development of some great matter to its small beginning; to see in the simple efforts of an obscure individual the germ of a great enterprise. The shoe and leather trade is at this day the most important branch of industry in all New England. . . . Lynn is, and even has been, since the days of Dagyr, at the head of that trade, and had not this poor Welshman (for he was poor and died in the almshouse),

[1] From James R. Newhall, *Centennial Memorial of Lynn*. Lynn, Mass., 1876, pp. 49–50, 61.

settled here at the time he did, it is not at all probable that the city would ever have occupied the position she now does. . . .

[But as the result of Dagyr's efforts, the shoe] business began to take root and flourish. Several who could command a small capital commenced manufacturing for the Boston market, and even for more distant places, and soon the trade began to overshadow all other industrial pursuits. . . .

The early growth of shoe manufacturing.

For many years the trade was carried on in an humble way, as of course the demand was limited. The manufacturer, with perhaps a journeyman and an apprentice or two, pursued his labors in a shop of some ten by twelve feet, and once a week or so proceeded to Boston on foot with the products of his enterprise in a bag on his shoulder; or, if his trade had been large enough to warrant the additional expense, with a horse and saddle bags or one of the primitive wheel carriages then in use, returning at night with a provision of stock for the coming week, and possibly with a little ready money. These were the days of small things in this now vast business; yet they reach down to the time of the [American] Revolution. . . .

Early and modern conditions contrasted.

The introduction of machinery has within a few years very much changed the mode of operation. Formerly there were to be seen in every neighborhood the ten by twelve one-story shops previously alluded to; in these the workmen in crews of half a dozen, pursued their labors, lightening the long hours of toil by animated discussions on every great interest of state and every little matter of local gossip. What a change since that day! We now behold, not tiny shops, but see towering in the most central quarters huge four or five story manufactories in which the ceaseless rumble of machinery is heard, and in which hundreds of operatives, male and female, are assembled with busy hands and silent tongues.

38. How a partnership may arise[1]

In a relatively simple industrial community, it is likely that most business enterprises would be carried on by individual enterprisers. As we have seen in the preceding selection, the energy and skill of one individual may provide a nucleus around which a growing business is

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series A, pp. 172–175.

built up. The individual enterpriser type of organization has numerous advantages, but as the business grows and becomes more complex, it often happens that the one man in charge of the enterprise finds it impossible to manage it with maximum effectiveness. It may be that the business calls for more capital than he alone can supply, or that it has become so complex as to demand more types of skill than he himself possesses. In such cases, conditions are ripe for the establishment of a partnership, as Professor Leverett S. Lyon explains in the following passage:

Circumstances under which an independent business man may find it desirable to take a partner.

Let us take a single example of the way in which the management of a factory grows up under our modern industrial system. Some years ago a young man who was employed as a superintendent in a shoe factory decided that he would no longer work under the management of some one else, but would go into the business of manufacturing shoes on his own account. During his years of work as an employee he had saved enough money to buy a small building and the machinery necessary to begin work. . . .

A young man establishes himself as a shoe manufacturer,

Before he could begin work it was necessary for him to buy raw materials for making shoes — leather for vamps, soles, and tops, nails for "pegging," and thread for sewing. He found that he was not very well trained for making these purchases. His work of superintending in the shoe factory had taught him a great deal about working with the raw materials, but it had given him little information about the places from which the raw materials came, or the prices which should be paid for them. It was only after a great deal of difficulty that he made satisfactory contracts to have raw materials delivered at his factory at certain times throughout the year. In procuring orders for the shoes he had even more difficulty than he had encountered in purchasing the raw materials. The work in the factory had taught him nothing about the methods by which shoes are taken from the factory to the wearer.

though not without encountering difficulties.

The year was little more than half gone when this young business manager discovered that his funds were getting low. His shop and machinery, the "fixed capital" as business men call it, had been paid for out of the savings with which he set up his business. But the "operating expenses" or "direct costs," such as light, heat, payments on raw materials, and the wages of his workmen, had to be met at

He finds himself in need of additional capital,

regular intervals. On the other hand, payments from the merchants who had agreed to purchase his shoes would not come in until the shoes had been delivered to them.

and is obliged to borrow money.

In this emergency this business manager went to a bank and asked for a loan. The banker, after making an investigation of the business and conducting an inquiry concerning the reputation of the manager, decided to grant the loan. With the money thus procured, the shoe manufacturer was able to continue his business successfully until the end of the year. . . .

He decides that he needs a partner,

In thinking over his experiences of the year he realized that he had encountered many difficulties which might have been lessened if he had a partner. He could not be both shop superintendent and sales agent. He decided that he needed a partner to sell the shoes he manufactured. If he could make such an arrangement, he could devote all of his own efforts to supervision of the factory and make sure that the shoes were made in the best and least expensive way.

and so takes into the business a former shoe salesman.

A salesman for another shoe factory, who had accumulated a small savings account, seemed a desirable partner, and he was induced to join the business. The men consulted a lawyer, who drew up for them a simple contract which stated in a general way the work to be done by each of them and the amount of money which each had invested. It was agreed that profits and losses arising from the business should be shared equally.

A lawyer explains to them the purpose of business law,

The lawyer made it clear to them that the laws, sometimes of the National Government, and sometimes of the various States, had been carefully drawn up to make it possible for men to form the types of business organization that would be most useful in carrying on their enterprises. He explained that one great purpose of government was to formulate the rules of the game by which men in business must be guided in their conduct. "It is because there are such rules," said he, "that we are able to deal with one another with confidence."

and the nature of a partnership.

The lawyer said: "In a partnership, such as you men have formed, each partner becomes, as it were, the agent for the other. If either of you makes an agreement with other persons concerning a matter of business, both of you are bound. Furthermore, remember that each of you has put a certain amount of money into this business. If your firm, as your partnership is called at law, is not successful in

its undertakings, you will be likely to lose this money. But that is not all. If your firm becomes indebted to anyone, the creditor has a right to obtain, by a lawsuit, not only the money which you have put into the business, but enough of any other money or property which either of you possesses to repay him."

39. How a corporation may arise[1]

The partnership has advantages over the individual enterpriser type of organization, but is itself subject to limitations.

In the above selection a partnership was explained as having arisen because of the difficulties encountered by an independent business man. A partnership may also arise as the result of an agreement between two or more persons, none of whom has previously been in business. But whatever the origin of the partnership, this form of business organization has marked advantages over the individual enterpriser type of organization. The partnership has the advantage of more types of skill, as well as of a relatively large amount of capital. In turn, however, the partnership may find itself unable to cope successfully with the growing needs of the business. In such a case, the partnership may be displaced by the corporation, as Professor Lyon explains in continuing the story of the two young men who had formed a partnership for the conduct of the shoe manufacturing business.

The new firm prospers,

The new firm was very successful. With each partner devoting his time to the field in which he was a specialist, substantial gains were made. At times there were disagreements about conducting the general affairs of the business, but more often the discussions of the two men resulted in better business policies than either would have formulated alone. Once during the first year it was necessary to borrow some money from the bank. On this occasion the banker was more ready to make the loan than he had been the year before. The business was now much better established, and the promise of two men, where each was liable, made the banker more sure that the money would be repaid.

Each year the orders for shoes increased and it began to be more and more difficult in the small shop to manufacture enough shoes to fill the orders. Finally, it became apparent to the members of the

[1] From the Department of the Interior, Bureau of Education. *Lessons in Community and National Life.* Washington, 1918. Series A, pp. 175–178.

but at length outgrows the partnership form of organization.

firm that they must enlarge the shop into a great factory if their business was to continue to grow. This would involve renting or purchasing more land, constructing a large building, purchasing a great amount of machinery, and hiring many more employees. Each of the partners had saved some money from the profits of the business, but together they did not have nearly enough to make the changes desired. In this situation they again consulted their lawyer. He said at once:

The members of the firm are advised to form a corporation.

"To enlarge the factory in the way you describe you will need at least $100,000. The thing to do is to form a corporation. To do so is easy and inexpensive, and should provide all the money that is necessary. If you do not object — I shall be glad to join you and look after the legal matters of the company.

The nature of this type of business organization explained by a lawyer.

"To begin the formation of a corporation we must secure certain blanks from the secretary of state at the State capitol. These we must fill out, giving our names and addresses as incorporators, the name of our new company, the purpose for which it is formed, the principal place at which we shall transact business, the amount of money which should be invested to make it successful, the way in which this money is to be obtained, and some statements regarding the way the new company will be managed. After this information is filed with the proper State officers, we shall be given permission to get money by selling other people an interest in the company.

The meaning of shares in a corporation.

"We shall divide the ownership of this shoe business into a thousand parts or shares. We shall represent each share with a piece of paper called a stock certificate. We shall offer the shares for sale at $100 each. When all have been sold there will be a total of $100,000, which is the amount needed. Everyone who buys one or more of these certificates has an interest in the new business. You men who have been operating the business as partners, of course, may exchange the shop materials which you have on hand for shares of stock. You may also purchase additional shares in the same way as anyone else.

Control of the new business,

"You may not have as much to say in directing the corporation as you had while your business was a partnership, because the ownership of each share in a corporation such as we are forming carries with it the right to one vote regarding business policies. But if you men secure a majority of the shares, you will have a larger number of

votes than all the other shareholders and can direct the new corporation as you please.

and the question of liability.

"It may seem to you that it will be difficult to get people who do not know us, and who are unfamiliar with the manufacturing of shoes, to invest money in our enterprise. I do not think there will be any trouble in this matter, however. A corporation differs sharply from a partnership in a very important respect. A creditor of a partnership may satisfy his claim from any property of any partner, but the owners of shares in a corporation are not liable personally for all of the debts of a corporation. They have what is called at law 'limited liability.' This means simply that if our business is unsuccessful, no stockholder can lose more money than he has paid for his shares of stock. It is because shareholders have this limited liability that people are comparatively willing to invest money in a corporation. These shares may be sold by their owners to anyone who wishes to buy them. This fact, which makes it easy for shareholders to withdraw their interest at any time, also encourages investment."

And so a corporation is formed.

The partners decided to form a corporation, and directed the lawyer to take charge of the matter for them. As soon as permission had been received from the secretary of state, shares in the new corporation were offered for sale. Many persons who knew nothing whatever about making shoes, but knew of the success of the factory, were very glad to invest some of their savings in the corporation. It was not long before all of the shares of stock had been sold. A meeting of the shareholders was then held, and it was decided to elect the original manufacturer president of the corporation, and to elect his partner vice-president. Other officers were elected and a board of directors, composed of the officers and seven or eight other shareholders, was chosen. The board of directors had the power to direct all the affairs of the corporation. . . .

40. Control of the corporation[1]

There has long been a tendency for numerous types of American industry to be dominated by the corporate form of business organization. This is a development of exceedingly great importance, for

[1] From Wesley C. Mitchell, *Business Cycles*. University of California Press, Berkeley, Cal., 1913, pp. 32–34.

The importance of knowing how the corporation is really controlled.

many of our corporations have become so large and powerful as to give rise to grave economic and social questions. To limit ourselves to a single phase of the corporation problem, let us notice that corporate development has been accompanied by a diffusion of responsibility which has often rendered easy the abuse of the corporation's power by inside interests. It is thus important to inquire into the manner in which the corporation is really controlled or managed. The following discussion is by an American economist, Professor Wesley C. Mitchell:

Corporate management disassociated from ownership and risk.

The large corporation, dominant in business to-day, is owned by a miscellaneous and shifting body of stockholders. . . . The work of management is usually disassociated from ownership and risk. The stockholders delegate the supervision of the corporation's affairs to the directors, and they turn over the task of administration to a set of general officers. The latter are commonly paid fixed salaries.

Control of the corporation may be in the hands of a small group,

In such an organization it is difficult to find anyone who corresponds closely to the capitalist-employer. Neither the typical stockholder, who votes by proxy, nor the typical director, who gives his attention to routine affairs, fills the bill. The general officers, remunerated largely by salaries, and practicing among themselves an elaborate division of labor, have no such discretion and carry no such risk as the capitalist-employer. The latter has, in fine, been replaced by a "management," which includes several active directors and high officials, and often certain financial advisers, legal counsel, and large stockholders who are neither directors nor officials. It is this group which decides what shall be done with the corporation's property.

or in the hands of a single individual.

In other cases, however, a single enterpriser dominates the corporation, and wields full authority. The stockholders elect his candidates, the directors defer to his judgment, the officials act as his agents. His position may be firmly intrenched by an ownership of a majority of the voting shares, or may rest upon personal influence over the owners of voting shares. In the "one-man" corporations the theoretical division of authority and function becomes a legal fiction. Practically the dominant head corresponds to the old capitalist-employer, except for the fact that he furnishes a far smaller proportion of the capital, carries a far smaller proportion of the pecuniary risk, and performs a far smaller proportion of the detailed

labor of superintendence. These limitations do not restrict, but on the contrary enhance, his power, because they mean that the individual who "owns the control" can determine the use of a mass of property and labor vastly greater than his own means would permit.

The centralization of corporate power,

While the corporate form of organization has made a theoretical division of the leadership of business enterprises among several parties at interest, it has also been possible to practice a centralization of power. The great captains of finance and industry wield an authority swollen by the capital which their prestige attracts from thousands of investors, and often augmented still further by working alliances among themselves. Among the enterprises of the whole country, this small coterie exercises an influence out of proportion not only to their numbers, but also to their wealth. The men at the head of smaller enterprises, though legally free, find their field of initiative limited by the operations of these magnates.

and its abuse by an inner ring.

In large corporations the few individuals in control have an opportunity to make money for themselves at the expense of the enterprise itself, or at the expense of the other parties at interest. By giving lucrative contracts to construction or repair companies in which they are interested, by utilizing their advance information of the corporation's affairs for speculation in the price of its shares, by rigging its accounts for the same purpose, by making loans or granting rebates to other companies in which they are interested, it is possible for an inner ring to make profits out of wrecking the corporation. There are certainly instances enough to invalidate the easy assumption that every business enterprise is managed to make money for the whole body of its owners. . . .

41. The formation of a trust[1]

The trust an exaggeration of the corporate form of business organization.

Just as the growth of industry has encouraged the development of the partnership and the corporation, so there is noticeable in American business a tendency toward concentration beyond the stage of the corporation proper. An exaggerated form of corporate business is known as the trust, by which we mean any closely-knit combination into which several corporations have formed themselves

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series A, pp. 209 212; 217–218.

for the purpose of furthering their control over a particular business or industry. In the following selection Professor Chester W. Wright illustrates the formation of a typical trust by tracing the history of the United States Steel Corporation:

The beginnings of what later developed into the U. S. Steel Corporation.

In the year 1858 one Andrew Kloman and his brother started a small iron forge at Allegheny, Pa. Their plant was worth about $5,000. They made a reputation for putting out good and reliable products, particularly axles for railroads, and the business prospered. . . . During the Civil War the demand for iron was enormously increased and the iron and steel industry grew rapidly and was very prosperous. [In 1863 Andrew Carnegie bought an interest in the business, and] in 1865 this partnership was consolidated with another in which Carnegie also had an interest, and took the name of the Union Iron Mills Co. . . .

The business, originally small, grows rapidly after the Civil War.

The Union Iron Mills consumed large quantities of pig iron, and the owners decided that they could obtain it at less cost if they made their own pig iron instead of buying it. In 1870 a group of them organized a separate company and erected the Lucy blast furnace to smelt ore and make pig iron. . . . In 1874 a number of men connected with the Union Iron Mills and some others who were interested in railroads organized the Edgar Thomson Steel Co., and a very efficient big plant was erected for the manufacture of steel rails. . . .

Further growth and combination, in which Mr. Carnegie figures prominently.

Another step toward integration and the further harmonizing of interests was taken in 1881 when the Thomson steel works, the Lucy furnaces, the Union Iron Mills, and some coke properties, together with $1,000,000 new capital, were all combined into one firm with a capital of $5,000,000. Mr. Carnegie, who had on various previous occasions acquired the interests of some of his partners in these concerns, owned a little more than half of the stock of this company and it was known as Carnegie Bros. & Co. (Ltd.). A further important move toward integration was made the following year when the Carnegie interests purchased a large amount of stock in the Frick Coke Co., which was the dominant owner of coal lands and coke ovens in the Connellsville district, whence came the best coking coal used in smelting iron ore.

In 1881 some competitors of the Carnegie Co. opened a big plant at Homestead for the manufacture of steel ingots, billets, and rails,

but they met with financial difficulties and two years later sold out to the Carnegie interests. . . . In 1890 another threatening rival was eliminated when the newly erected Duquésne steel works were purchased. In 1892 the various Carnegie interests were again consolidated in the Carnegie Steel Co. (Ltd.), with a capital of $25,000,000. . . .

The elimination of competitors.

There were also organized during these years, . . . the Federal Steel Co. . . . and the National Steel Co. . . . Both of these steel companies were combinations of other companies and both were competitors of the Carnegie Steel Co. Seeing dangers of competition ahead, the Carnegie companies threatened low prices and the loss of big profits which prosperity seemed to promise. Moreover, the bankers and promoters who still held a large amount of stock in the new combinations were anxious to sell their stocks to the public, and they knew that if a competitive war broke out in the steel business the value of these stocks would fall and the public would hesitate to buy. This furnished an added reason for trying to harmonize the conflicting interests.

The development of new competitors

It was under these circumstances that a meeting of the leading men in the steel industry was called, and in 1901 under the leadership of Mr. J. P. Morgan the plan to consolidate all of these concerns and small combinations in one gigantic company to be called the United States Steel Corporation, with a capitalization of about $1,400,000,000, was carried through. The Steel Corporation as then organized owned 149 steel works of various kinds, vast ore, coal, gas, and limestone properties, over 1,000 miles of railroad, and over 100 vessels on the Great Lakes. It at that time controlled about two-thirds of the country's total output of steel ingots, billets, rails, castings, nails, plates, structural shapes, and sheet steel, and about three-quarters of the output of wire rods and tin plate. . . .

leads to the organization of the U. S. Steel Corporation.

42. The persistence of the small firm[1]

The foregoing selections trace the development of the forms of business organization from small and simple types to such complex and gigantic associations as the trust. The tendency for business to

[1] From Alfred Marshall, *Industry and Trade*. The Macmillan Co., London, 1919; pp. 247–248, 773–774, 797–798.

Despite the advantages of the large business, the small firm persists.

be handled in larger and larger units, and the advantages of large firms over small ones, might be interpreted as meaning that the small firm is being crushed out. But though the large business has numerous advantages over the smaller concern, the small firm persists, as is pointed out by Professor Alfred Marshall in the following selection:

Reasons for this persistence:

Though the small producer is constantly threatened with extinction, though he has in fact been driven from some branches of many industries and is in process of being driven from others, yet he survives. He is saved by the fact that although machinery may have been applied to what used to be the greater part of a process of production, yet the remainder is still done in the old way. . . .

some processes resist the application of machinery;

the small firm is taking over industries formerly carried on in the home;

Moreover, improved mechanical processes are taking over many tasks which each household used to perform for itself. Such industries as dressmaking, baking and washing, once largely domestic, are ever adding to the ranks of small businesses, and creating new steps by which enterprise and initiative can begin their climb upward. . . .

the perfection of machinery has opened up new markets for the small firm;

It may be said, with reference to the present century, that though machinery has ever been extending its domain, yet each conquest has increased the relative importance, from the point of view of the operative, of that ground which it has left open to hand work. It has opened up new ground for general markets, and there is no cause for wonder at the fact that the number of small businesses is constantly growing, since their products are ever finding new vents in these markets, as well as in the supply of special materials and machines to large businesses. . . .

the influence of electrical appliances;

The advance of the electrical industries will help the small factory in competition with the large factory, and the workshop in competition with the factory, etc. The cheapness, handiness, and versatility of the implements, to which electricity can be supplied, may sometimes aid the poor man to make experiments at his own risk, and it may thus contribute to the maintenance of strong, independent, individual character. . . .

Habit plays some part in the persistency with which many of those, who can least afford it, indulge in the luxury of buying in small quantities from small shops near at hand. But the hold of the small shopkeeper on poor districts rests for the greater part on solid economic

and the services rendered by the small shop in poor districts.

foundations. Some of these foundations are themselves the product of evil and unnecessary conditions, but others are likely to endure so long as a considerable part of the population live on small incomes and are inadequately housed.

To begin with, the cost of service in one of these shops is often as small as to be almost negligible. It may be attended by the wife of an artisan [because] he and she may want to increase their small incomes, or perhaps to accumulate a little capital which may enable the man to set up as a small employer in his own craft. The wife wastes no time in the shop, but is busy with household affairs till she is summoned by the shop bell. This source of supply of small shops seems likely to endure long.

And there is perhaps an equally permanent demand for them. When an unexpected need suddenly arises, it is convenient to send out a child to shop close by. But the chief sources of the demand for numerous very small shops are the improvidence of many, and the want of storage of all who have no adequate houseroom. . . . In many districts no one buys coal by the ton, except to sell it again, and even a hundredweight in a box may tempt to extravagance and attract greedy neighbors asking for a loan. So it is often bought [in very small quantities.] . . .

Questions on the foregoing Readings

1. What was the most common form of business organization in colonial times?
2. Who was John Adam Dagyr?
3. Describe the beginnings of the shoe manufacturing industry in Lynn, Massachusetts.
4. How did the early shoemakers in Lynn market their product?
5. Contrast early and modern conditions in the shoe manufacturing industry in Lynn.
6. Under what circumstances may an independent business man find it desirable to take a partner?
7. Describe some of the difficulties which might be encountered by a young man who is carrying on a shoe manufacturing business alone.
8. How would the formation of a partnership enable him to overcome these difficulties?
9. What is the purpose of business law?
10. What, in brief, is the nature of a partnership?

11. Under what circumstances might a partnership be superseded by the corporate form of industry?
12. Explain the nature of the corporation.
13. What is meant by a "share" in a corporation?
14. Who controls a corporation?
15. What is meant by "limited liability"?
16. Why is it important to know the manner in which a corporation is actually managed?
17. Explain how a single individual may dominate the management of a corporation.
18. Discuss the centralization of power in corporate business.
19. By what methods may a few individuals manage a corporation for their own profit, rather than in the interests of the shareholders as a body?
20. Define a trust.
21. Illustrate the development of a typical trust by tracing the early history of the steel business.
22. When was the United States Steel Corporation formed, and what was its capitalization at this time?
23. What is the relation of machinery to the persistence of the small firm?
24. Name some industries formerly carried on within the family circle, but now being taken over by small businesses.
25. What are some of the reasons why the small shop persists in poor districts?

CHAPTER VIII

SUMMARY AND FORECAST

43. Rapid growth of American industry[1]

The purpose of this chapter.

The purpose of this chapter is to summarize a few of the more important phases of American industrial development. We may note, first of all, that a dominant feature of American industry is the rapidity with which it has developed. Judged in the light of world history, our country is very young. Yet despite the fact that it was a virgin continent a few centuries ago, it is to-day the seat of one of the greatest industrial civilizations in the world. Something of the speed and vigor with which industry has developed in the United States is indicated by the following comments of Pierre Leroy-Beaulieu, a French publicist who visited this country at the opening of the twentieth century:

The United States an industrial rather than an agricultural country.

The United States is to-day an industrial rather than an agricultural country. Agriculture, of course, still plays a very prominent part in the economic activities of the Union, affording occupation to the largest number of people, and leading all else in point of foreign trade. . . . But industry now gives employment to a greater aggregate of capital than does agriculture, and also yields an output of higher value. . . . It is, indeed, pretty safe to say that the agricultural competition of the United States, so far as concerns the generality of products, has already reached its maximum. Virginal and fertile lands are becoming scarce, and . . . the population is continuing to increase rapidly, and to assume a more and more urban character. . . .

The industrial development of the United States is, of course, more recent than that of the advanced countries of Europe — England, France, and Germany. So long as the American colonies were linked

[1] From Pierre Leroy-Beaulieu, *The United States in the Twentieth Century*. Funk & Wagnalls Co., New York, 1907; pp. 157–162.

The industrial development of the United States is relatively recent.

to the mother country the prohibitions of the mercantile system operated against manufacturing enterprise. And even after independence had been attained, agriculture for a long time enjoyed an absolute supremacy, relegating industry to second place, as usually happens in new countries where there is small capital, where a restricted market offers only precarious openings, and where the development of a virginal soil, the exploitation of forests, and the garnering of natural, uncultivated products promise large profits at a small outlay, and consequently dissuade men from the heavy investments necessary to the conduct of manufacturing establishments. "It seems probable," says the [United States Census Bureau] "that until about the year 1850 the bulk of general manufacturing done in the United States was carried on in the shop and the household, by the labor of the family, or individual proprietors with apprentice assistants, as contrasted with the present system of factory labor, compensated by wages, and assisted by power."

Industrial development in the first half of the nineteenth century.

This does not mean that the concentration of certain industries in large establishments had not begun before 1850. This movement . . . had started with the War of 1812, which interrupted relations between the United States and England. In the textile industries it was rapid. In 1823 was founded Lowell, the first of the purely manufacturing cities which to-day make Massachusetts a second Lancashire. . . . From 1830 to 1850 the development of the factory was rapid. In 1850 Massachusetts could show 1,288,000 cotton spindles as against 340,000 in 1830. In 1860 she had 1,688,000. Between 1850 and 1860, if not in the preceding decade, corporations were established for the manufacture of iron, steel, leather, etc. According to the distinguished English statistician, Mulhall, the products manufactured in the United States rose from an aggregate value of $268,000,000 in 1820, and $467,000,000 in 1840, to $1,907,000,000 in 1860, closely approaching the value of the industrial output of France and Germany, and far outdistanced by England only.

The period since 1860,

Since 1860 the industrial growth of the United States has been little short of miraculous. . . . [When the growth of the country's industries] is compared with the industrial growth of other nations, the marvelous industrial expansion of the United States will be still more readily appreciated. . . . Mulhall, who has just been cited,

attempting to appraise the total value of manufactured goods, estimates that from 1860 to 1894 it passed in Great Britain only from $2,808,000,000 to $4,263,000,000; in France only from $2,092,000,000 to $2,900,000,000; in Germany only from $1,995,000,000 to $3,357,000,000; but in the United States from $1,907,000,000 to $9,498,000,000. . . . The United States is to-day . . . the first industrial power in the world, just as it is the first agricultural power, and it does not seem too much to say that its industrial strength, as expressed by the value of the output, has increased by five-fold from 1860, while that of Germany has only doubled, that of Great Britain has increased by but one-half, and that of France shows a still smaller increase. . . .

and the present industrial supremacy of the United States.

44. Magnitude of American industry[1]

The preceding summary of the industrial growth of the United States suggests a second important characteristic of American industry, namely, its magnitude. The very fact that American industry is a gigantic affair suggests the difficulty or even impossibility of summarizing it in such a way as to convey an adequate idea of its size. Nevertheless, the student may gain some idea of the magnitude of various types of American industry from the following extracts from the Federal Reserve Board's summary of business conditions in the leading industries:

Difficulty of appreciating the magnitude of American industry.

The preliminary estimates for the crops of 1921 . . . indicate that total agricultural production in 1921 will be much lower than in 1920. . . . The preliminary estimate for corn production is 3,151,698,000 bushels. . . . The stock of old corn on farms in the United States was estimated at 281,472,000 bushels on November 1, which is over three times the average holdover during the past five years. . . . The estimated production of sugar beets on November 1 amounted to 7,480,000 tons. . . . The cotton crop of 1921 will probably exceed 8,000,000 bales. . . . The November 1 estimate for tobacco showed an increase to 1,020,874,000 pounds. . . . The apple crop continued to deteriorate during October, and the estimated production is only 102,290,000 bushels. . . .

Estimates for the crops of 1921.

[1] From the Federal Reserve Board, *Federal Reserve Bulletin*. Washington, December, 1921; pp. 390–399.

Flour production.

The output of mills representing seventy-five per cent of total production in district No. 9 (Minneapolis) was 2,989,089 barrels during October. . . . Production of mills in district No. 10 (Kansas City), representing sixty-five per cent of the total output of that district, amounted during October to 2,295,789 barrels. . . . In district No. 12 (San Francisco), production of sixty-three mills during October was 997,325 barrels. . . .

Live stock movements.

Heavy movement of live stock to market was reported during October. Receipts of cattle and calves at fifteen western markets during that month were 1,712,917 head. . . . Receipts of hogs increased from 1,783,827 head during September to 2,057,231 head during October. . . . October receipts of sheep were 1,842,148 head. . . .

The output of coal,

Production of bituminous coal in October was larger than during any month of the current year. . . . Production increased from 35,105,000 tons in September to 43,741,000 tons in October. The increased production of anthracite coal during October was no doubt caused by the speeding up at the time of the threatened railroad strike. . . . The output this October was 7,580,000 tons. . . . The improvement in the iron and steel industry in September and October continued to be reflected in an increased production of coke. Beehive coke production increased from 289,000 tons in September . . . to 416,000 tons in October. . . .

petroleum,

Stocks of crude oil held in Kansas and Oklahoma aggregated 65,936,148 barrels at the end of September. . . . Production of petroleum in Kansas and Oklahoma during the month of October averaged approximately 404,125 barrels daily. . . .

and iron and steel.

During October distinct improvement was evident in the iron and steel industry. Pig-iron production during that month amounted to 1,233,232 tons . . . as compared with 985,529 tons during September. . . . Steel-ingot production showed a somewhat greater increase, from 1,174,740 tons during September to 1,616,810 tons during October. . . .

The production of automobiles.

Some of the larger manufacturers of automobiles . . . further curtailed production during the latter part of October, when they discovered cars piling up in the hands of distributors and dealers, pending the presentation of new models. In fact, reduction of production

schedules to conform to approaching winter conditions, with their lessened sales, has been general. Manufacturers' shipments during October were 17,323 carloads, as compared with 19,002 carloads during September. . . .

Activity in the textile industries.

The unsettling effect of a drop in the price of raw cotton . . . has resulted in a slightly lessened activity in the industry during October. The uncertainty manifested itself, however, rather in a hesitancy on the part of buyers to place new orders than in any immediate curtailment of mill activity. An examination of cotton statistics makes it apparent that mill activity was sustained during the month, as consumption amounted to 494,745 bales in October. . . . Reports from thirty-five of the fifty-eight members belonging to the National Association of Finishers of Cotton Fabrics show that during the month of October there was an increase in finished yards billed, the total amounting to 105,286,414, as compared with 101,824,795 for September. . . . Wool consumption [in district No. 4 (Cleveland)] for the month of October was 67,287,000 pounds. . . .

Lumber.

October shipment [of lumber in district No. 9 (Minneapolis)] totaled 15,699,808 feet. . . . Thirty-five mills in district 11 (Dallas) report an average weekly production of 13,577,480 feet. . . .

Employment conditions.

The United States Employment Service reports an increase of 1.6 per cent in numbers employed in fourteen selected industries of the United States in October. Such local reports as are available indicate that increases in numbers employed are slightly in excess of decreases. Generalizations are, however, difficult because of the marked variations in employment conditions within the same community as well as between different regions, which grow out of the unequal degrees of activity prevailing in the several industries. . . .

45. Rise of the great industrial city[1]

City growth closely related to industrial development.

Closely connected with the rapid growth and present magnitude of American industry, is the rise of the great industrial city. Whereas in 1790 only one-thirtieth of our population was found in cities, and in 1850 only one-eighth, approximately half of the people of the United States now live in the urban districts. A large number of

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series A, pp. 204–208.

influences have contributed to city growth in the United States, but of fundamental importance are the changes made necessary by the Industrial Revolution. The industrial significance of city growth is developed by Professor Leverett S. Lyon as follows:

Special motives for the growth of cities.

There are many places in the United States where the materials or power for manufacturing have brought a concentration of people. Fall River, Lowell, Manchester and Waterbury, in New England, all had their locations determined by the availability of water power, which attracted industries, and the industries in turn attracted workers. Water power and proximity to the great grain fields made Minneapolis the location of the world's greatest flour mills, and about this industry has grown a city. The coal mines and ore fields of eastern Pennsylvania explain the congestion of population in the Bethlehem steel district. . . . The packing industry, going west to the farms and cattle ranges, centered at Chicago and later expanded to Kansas City, Omaha and other Western cities, drawing with it a great army of workers. . . .

St. Louis a distributing center.

Some locations are such that they are the natural points at which the products of many other localities are assembled for distribution. St. Louis has such a location. Railroads and river transportation bring manufactured products from the East. To the west lies a vast farming country in which almost no manufacturing is done. This situation has placed St. Louis in the front rank of cities distributing hardware supplies. Some locations are such that they are the natural receiving and distributing points for the trade of continents. Such a location accounts, of course, for the tremendous concentration of people at New York. New York is a great manufacturing city, but it is even more a commercial city. Here come the goods of Europe to be sold in America, and here come the goods of America to be sold abroad. . . .

New York.

Secondary causes of city growth.

We know quite well that the workers in the great basic industries and the persons who import and export goods are not the only people who concentrate and thus form a city. The workers must be fed, clothed, housed and provided with the thousand and one things they demand. To perform this work a second army of workers is called to the spot where an industry has located or from which goods are distributed. New industries come to make what is demanded;

stores and markets appear to supply what cannot well be made there. The great distributive system which furnishes merely food to a large city requires in itself enough people to make a city. Banks and bankers are needed; entertainment is desired; means of transportation must be provided; physicians are a necessity; teachers, lawyers and ministers are wanted. Thus an area of concentrated population adds to itself.

A large industrial city may give rise to a series of near-by industrial centers.

About every large industry others spring up which supply it with some of its materials or use its products in further manufacture. In all of the districts where steel is manufactured, it furnishes the raw material for a score of other industries. Wire, pipe, fencing, nails, shop machinery, and agricultural implements are all dependent upon steel manufacture, and plants making these have prospered in the iron and steel districts. The labor supply that is already there often brings new factories to factory towns. Very often, however, the industries that follow in the train of the larger one locate far enough away to secure cheaper rent or less taxation than is charged in the large city. About these new industries new cities grow — satellites of the larger center of population.

The problems of the city.

The concentration of great numbers of people in certain localities has been very fruitful in producing goods, but it has brought serious problems. These problems are emphasized because cities have grown so rapidly that people have not learned how to . . . manage so large an organization as a city. One of the most serious problems in a city is procuring and distributing food and other necessities. City dwellers cannot buy food from the producers. The city is naturally a market to which all kinds of supplies are sent, but how to care for these supplies, and how to distribute them most cheaply, are new questions which came with cities. How to procure pure water, lights that do not bring danger of fire, sidewalks, passable streets, open spaces for play, and rapid transportation systems, are all problems which the city must solve. The difficulty of housing many people, all of whom wish to live near their work, has given cities a problem which they have not yet solved.

The outlook.

Concentration of population has come as a natural part of our present system of satisfying wants. It is likely to increase so long as various parts of the world are interdependent. . . .

46. Our dependence upon unknown specialists[1]

Division of labor means specialization, and specialization means interdependence.

The growing use of machinery, the improvement of forms of business organization, the steady expansion of the market, these and other factors have stimulated the division of labor in the United States. We have become a nation of specialists, and a fundamental characteristic of the specialist is that he is dependent upon numerous other specialists for most of the things which he personally consumes. How the division of labor brings about the interdependence of individuals is explained by Adam Smith in the following selection:

The source of opulence.

It is the great multiplication of the productions of all the different arts, in consequence of the division of labor, which occasions, in a well-governed society, that universal opulence which extends itself to the lowest ranks of the people. Every workman has a great quantity of his own work to dispose of beyond what he himself has occasion for; and every other workman being exactly in the same situation, he is enabled to exchange a great quantity of his own goods for a great quantity, (or, what comes to the same thing, for the price of a great quantity,) of theirs. He supplies them abundantly with what they have occasion for, and they accommodate him as amply with what he has occasion for, and a general plenty diffuses itself through all the different ranks of the society.

A multitude of specialists are necessary in order that the day-laborer may be provided with a coat,

Observe the accommodation of the most common artificer or day-laborer in a civilized and thriving country, and you will perceive that the number of people of whose industry a part, though but a small part, has been employed in procuring him this accommodation, exceeds all computation. The woolen coat, for example, which covers the day-laborer, as coarse and rough as it may appear, is the produce of the joint labor of a great multitude of workmen. The shepherd, the sorter of the wool, the wool-comber or carder, the dyer, the scribbler, the spinner, the weaver, the fuller, the dresser, with many others, must all join their different arts in order to complete even this homely production.

How many merchants and carriers, besides, must have been employed in transporting the materials from some of those workmen to

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. Book I, chapter i.

others who often live in a very distant part of the country! How much commerce and navigation in particular, how many ship-builders, sailors, sail-makers, rope-makers, must have been employed in order to bring together the different drugs made use of by the dyer, which often come from the remotest corners of the world! What a variety of labor, too, is necessary in order to produce the tools of the meanest of these workmen! To say nothing of such complicated machines as the ship of the sailor, the mill of the fuller, or even the loom of the weaver, let us consider only what a variety of labor is requisite in order to form that very simple machine, the shears with which the shepherd clips the wool. The miner, the builder of the furnace for smelting the ore, the feller of the timber, the burner of the charcoal to be made use of in the smelting-house, the brick-maker, the brick-layer, the workmen who attend the furnace, the mill-wright, the forger, the smith, must all of them join their different arts in order to produce them.

or other article.

Were we to examine in the same manner, all the different parts of his dress and household furniture, the coarse linen shirt which he wears next his skin, the shoes which cover his feet, the bed which he lies on, and all the different parts which compose it, the kitchen-grate at which he prepares his victuals, the coals which he makes use of for that purpose, dug from the bowels of the earth and brought to him perhaps by a long sea and a long land carriage, all the other utensils of his kitchen, all the furniture of his table, the knives and forks, the earthen or pewter plates upon which he serves up and divides his victuals, the different hands employed in preparing his bread and his beer, the glass window which lets in the heat and the light, and keeps out the wind and the rain, with all the knowledge and art requisite for preparing that beautiful and happy invention . . . together with the tools of all the different workmen employed in producing those different conveniences; if we examine, I say, all these things, and consider what a variety of labor is employed about each of them, we shall be sensible that without the assistance and coöperation of many thousands, the very meanest person in a civilized country could not be provided, even according to what we very falsely imagine the easy and simple manner in which he is commonly accommodated.

The position of the day-laborer: a comparison

Compared, indeed, with the more extravagant luxury of the great, his accommodation must no doubt appear extremely simple and easy; and yet it may be true, perhaps, that the accommodation of an European prince does not always so much exceed that of an industrious and frugal peasant, as the accommodation of the latter exceeds that of many an African king, the absolute master of the lives and liberties of ten thousand naked savages.

47. The impersonality of modern life[1]

Among the disadvantages of specialization is the impersonality of modern life.

From the preceding selection it must be apparent that as the result of the specialization to which the division of labor has given rise even an humble workman gets a better living than he could possibly get if he were to rely entirely upon his own efforts for all of the commodities which he needs and wants. The fact that the division of labor has effected a great improvement in the process of getting a living is a great advantage; on the other hand, specialization has its disadvantages. In this selection only one of these disadvantages will be emphasized. This is the impersonal character of an industrial community composed of specialists. The following discussion is by Leona Margaret Powell:

The village of former days

It is clear that the city is much more impersonal than the little village, but even the village of to-day is impersonal as compared with the village of a hundred years ago. In former days the people of the villages nearly always knew in a personal way the people who made the various things they used. Very frequently they were made right in the family circle. If they were not so made, the chances are that the villager would know from what neighbor's farm the wood or flax or lumber or leather came, and would know everyone who worked these raw materials into finished goods. . . .

compared with the village of to-day.

In the village of to-day the situation is very different. What article of dress or food or household manufacture now used by village people could be traced by them to the person who made it? A few local industries still survive. A few of the householders in the village get their butter directly from some farmer's wife . . . but in many cases the butter is bought in packages marked with the name

[1] From the Department of the Interior, Bureau of Education. *Lessons in Community and National Life.* Washington, 1918. Series B, pp. 98–103.

of some distant dairy, or perhaps not marked at all. Perhaps the village carpenter comes in and puts up a shelf which he himself has stained and finished, but the brackets on which the shelf rests come from nobody knows where, and were taken through all the processes from mining the iron ore to the final shaping by people whom the villager has never heard of and will never know. His flour comes from an unknown miller's hands; his shoes were made in a distant factory by unknown workers. . . .

Impersonality of the market.

Perhaps it is not strong enough to say that goods are made for unknown persons. The situation is still more impersonal. Goods are made for "a market" wherever that market can be found, and this is a very impersonal matter indeed. . . . A producer makes things in large quantities and sells them for money to a large dealer whom we call a jobber. The jobber sells them to a wholesaler, the wholesaler to a retailer, and the retailer to the consumer. Since we have excellent methods of communication and transportation, it frequently happens that the producer and the consumer are thousands of miles apart and have no bond of connection whatever, unless one calls the impersonal money used in the various transactions a bond of connection. It is not surprising under such circumstances that some producers become careless of the best interests of the consumers whom they do not know and will never see, and care only for making as much money as possible as quickly as possible. . . .

Relations between worker and employer have become impersonal.

Our modern large-scale businesses make the relationship between the owner and the worker very impersonal. In the days of small industry, the master and the workmen were friends in a very real sense of the word. Indeed, the worker frequently lived in the home of the master and received trade instruction from him. . . . Nothing like this is possible in the big businesses of to-day. There are few, if any, personal contacts between employers and employees. In the work place a whole system of organization — managers, heads of departments, foremen, subforemen — has come between the employer and the men. . . All this does not mean that employers give no thought at all to the welfare of their workers. Many do, but their interest must be expressed in a form which reaches a group rather than an individual. . . . Where several thousand men are employed

in a single plant, and where the owners of this plant are members of a corporation, it is simply impossible for personal relationships to spring up.

The machine is impersonal.

Even the machines with which the men make goods to-day increase the impersonality characteristic of modern life. There are few things more impersonal than a machine when it gets into operation. It works according to physical laws and not according to the mood of its attendant. If the worker is tired and has difficulty in keeping up with the machine, the steel and iron with which he has to deal have no sympathy for this feeling. If a man puts his hand into a die press, the machinery goes on working exactly as it would if he had put in the proper material to be stamped. . . . The law of gravitation, the pile driver, and the steam shovel at work are no respecters of persons. . . .

48. The problems of American industry[1]

American industrial development has given rise to grave problems.

This and the preceding chapters have been concerned with a *description*, rather than with an *analysis*, of American industry. Little effort has been made to indicate the defects of our industrial organization, and few pains have been taken to explain the nature of the problems to which our industrial development has given rise. Yet no one can read the most cursory description of American industry without being impressed with the fact that our economic development has been attended by grave evils. Disadvantages have accompanied the advantages of modern business, and with the improvement in our methods of getting a living there have arisen serious economic and social problems. The background of the problems of American industry is briefly discussed by an American economist, Professor Frank A. Fetter, as follows:

Every period has had its problems,

The word "problem" is often on our tongues. Life itself is and always has been a problem. In every time and place in the world there have been questions of industrial policy that challenged men for an answer, and new and puzzling social problems that called for a solution. And yet when institutions, beliefs and industrial processes were changing slowly from one generation to another, and men's lives

[1] From Frank A. Fetter, *Modern Economic Problems*. The Century Co., New York, 1916; pp. 3–6.

were ruled by tradition, authority and custom, few problems of social organization forced themselves upon attention, and the immediate struggle for existence absorbed the energies and the interests of men.

but our time seems to be peculiarly the age of problems.

But our time of rapid change seems to be peculiarly the age of problems. The movement of the world has been more rapid in the last century than ever before — in population, in natural science, in invention, in the changes of political and economic institutions; in intellectual, religious, moral and social opinions and beliefs.

Types of problems.

Some human problems are for the individual to solve, as, whether it is better to go to school or to go to work, to choose this occupation or that, to emigrate or to stay at home. Other problems of wider bearing concern the whole family group; others, still wider, concern the local community, the state, or the nation. In each of these there are more or less mingled economic, political and ethical aspects. Economics in the broad sense includes the problems of individual economy, of domestic economy, of corporate economy, and of national economy. [But in studying the economic problems of American life, it will be desirable] to approach the subject from the public point of view, to consider primarily the problems of "political economy," considering the private, domestic and corporate problems only insomuch as they are connected with those of the nation or of the community as a whole. Our field comprises the problems of national wealth and of communal welfare. . . .

Factors involved in our economic problems:

The particular economic problems in America at this time are determined by the whole complex economic and social situation. . . . [The chief factors involved in our economic problems are as follows:]

(a) basic material resources,

(a) The basic material resources, consisting of the materials of the earth's surface, and the natural climatic conditions which together provide the physical conditions necessary for human existence, and which furnish the stuff out of which men can create new forms of wealth.

(b) industrial equipment,

(b) The industrial equipment, consisting of all those artificial adaptations and improvements of the original resources by which men fit Nature better to do their will. . . .

(c) social system,

(c) The social system under which men live together, make use of wealth and of their own services, and exchange economic goods.

(d) and people.

(d) The people, considered with reference to their number, race, intelligence, education, and moral, political and economic capacity.

Conclusion.

The particular economic problems which are presented to each generation of our people are the resultant of all these factors taken together. A change in any one of them alters to some extent the nature of the problem. . . .

Questions on the foregoing Readings

1. What is the purpose of this chapter?
2. Discuss the statement that "the industrial development of the United States is relatively recent."
3. How was the bulk of general manufacturing done in the United States in 1850?
4. Describe the growth of American business between 1812 and 1860.
5. Describe the industrial growth of the United States since 1860.
6. Mention some of the estimates for the crops of 1921 in order to illustrate the magnitude of American agriculture. Illustrate, briefly, the magnitude of several other types of industry.
7. Compare the relative size of our city population in 1790 and at the present time.
8. What are some of the special motives for the growth of cities?
9. Name some secondary causes of city growth.
10. Illustrate the manner in which a large city may give rise to satellite cities.
11. Name some of the problems to which urban development has given rise.
12. What is a fundamental characteristic of the industrial specialist?
13. What, according to Adam Smith, is the source of opulence?
14. Describe the work of some of the numerous individuals who combine their different arts in order to provide the day-laborer with a coat.
15. Illustrate the variety of labor employed in the production of other articles consumed by the day-laborer.
16. Compare the position of the day-laborer with that of an European prince on the one hand, and an African king on the other.
17. Name an important disadvantage of specialization.
18. What were the chief characteristics of the village in former days?
19. Contrast this type of village with the village of modern times.
20. Illustrate the impersonality of the market.
21. Describe the change which has come about in the relations between worker and employer.
22. To what extent is the machine impersonal?
23. Explain the statement that "our time of rapid change seems to be peculiarly the age of problems."
24. From what point of view is it desirable to approach our economic problems?
25. Name the four factors involved in our economic problems.

PART II — THE ANALYSIS OF AMERICAN INDUSTRY

a. THE PARTS OF THE INDUSTRIAL MECHANISM

CHAPTER IX

THE MEANING OF PRODUCTION

49. An early notion of production [1]

Formerly only those who turned out a material object were considered productive.

No term is more commonly used in business circles than "production," and yet the precise meaning of this word has been hotly debated by students of industrial life. Many of the earlier writers on economics held a view of production which modern students reject. Even Adam Smith, generally known as the "father of modern economics" because of his profound influence upon the science, held a view of production which modern economists have been obliged to reject. Briefly, he held that only such laborers as turned out *material* objects were productive. This view he explains in the following extract from his celebrated work, *An Inquiry into the Nature and Causes of the Wealth of Nations*, published in 1776:

Adam Smith distinguished between productive and unproductive labor. An example of each.

There is one sort of labor which adds to the value of the subject upon which it is bestowed; there is another which has no such effect. The former, as it produces a value, may be called productive; the latter, unproductive labor.

Thus the labor of the manufacturer adds, generally, to the value of the materials which he works upon, that of his own maintenance, and of his master's profit. The labor of a menial servant, on the contrary, adds to the value of nothing. Though the manufacturer has his wages advanced to him by his master, he in reality costs him no expense, the value of those wages being generally restored, together with a profit, in the improved value of the subject upon which his labor is bestowed. But the maintenance of a menial servant never is restored. A man grows rich by employing a multitude of manu-

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776; Book II, chapter iii.

facturers; he grows poor by maintaining a multitude of menial servants.

Labor which does not fix itself in a vendible commodity

The labor of the latter, however, has its value, and deserves its reward as well as that of the former. But the labor of the manufacturer fixes and realizes itself in some particular subject or vendible commodity, which lasts for some time at least after that labor is past. It is, as it were, a certain quantity of labor stocked and stored up to be employed, if necessary, upon some other occasion. That subject, or what is the same thing, the price of that subject, can afterwards, if necessary, put into motion a quantity of labor equal to that which had originally produced it. The labor of the menial servant, on the contrary, does not fix itself in any particular subject or vendible commodity. His services generally perish in the very instant of their performance, and seldom leave any trace or value behind them, for which an equal quantity of service could afterwards be procured.

is unproductive.

The labor of some of the most respectable orders in society is, like that of menial servants, unproductive of any value, and does not fix or realize itself in any permanent subject or vendible commodity, which endures after that labor is past, and for which an equal quantity of labor could afterwards be procured.

Some examples of what Adam Smith called unproductive labor.

The sovereign, for example, with all the officers both of justice and war who serve under him, the whole army and navy, are unproductive laborers. They are the servants of the public, and are maintained by a part of the annual produce of the industry of other people. Their service, however honorable, however useful, or however necessary, produces nothing for which an equal quantity of service can afterwards be procured. The protection, security, and defense of the commonwealth, the effect of their labor this year, will not purchase its protection, security, and defense for the year to come.

Further examples.

In the same class must be ranked, some both of the gravest and most important, and some of the most frivolous professions: churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera singers, opera dancers, etc. The labor of the meanest of these has a certain value, regulated by the very same principles which regulate that of every other sort of labor; and that of the noblest and most useful, produces nothing which could afterwards

purchase or procure an equal quantity of labor. Like the declamation of the actor, the harangue of the orator, or the tune of the musician, the work of all of them perishes in the very instant of its production. . . .

50. The modern view of production[1]

The difficulties of Adam Smith's view solved by the notion of the satisfaction of wants as the end of production.

In the preceding selection Adam Smith insisted upon a sharp distinction between productive and unproductive laborers. This distinction was early attacked and long debated by other writers on economic subjects. The view expressed by Adam Smith led to numerous difficulties and inconsistencies, which persisted until economists assumed a new attitude toward labor. According to this new view, the end of production is not necessarily material goods, but rather the satisfaction of wants. Those who accept this view will readily see that the manufacturer described in the preceding selection might conceivably be no more productive than some of the persons labelled "frivolous." The objections to Adam Smith's idea of production are discussed in the following passages by the German economist, Professor William Roscher:

Adam Smith's view,

Even Adam Smith called services in the narrower sense of the term, the grave and important ones of the statesman, clergyman and physician, as well as the "frivolous" ones of the opera singer, ballet dancer, and buffoon, unproductive. The labor of none of these can be fixed or incorporated in any particular object.

and the queries raised by it.

But how strange it is that the labor of a violin-maker is called productive, while that of the violin player is called unproductive, although the product of the former has no other object than to be played on by the latter? Is it not strange that the hog-raiser should be called productive, and the educator of man unproductive; the apothecary, who prepares a salve which alleviates for the moment, productive; the physician unproductive, in spite of the fact that his prescription . . . may radically cure the severest disease?

If the productiveness of an employment of the factors of production be made to depend on whether it is attended by a material result, no one will deny that the labor of the plowman, for instance, is pro-

From William Roscher, *Principles of Political Economy*. Henry Holt & Co., New York, 1878. Vol. I, pp. 173–178.

Production may be non-material as well as material.

ductive; and no one, of Adam Smith's school at least, that that of the clerk, who orders the raw material for the owner of the manufactory, is [productive.] They have participated [in] production. But has not the servant of the state, who protects the property of its citizens, or the physician, who preserves the health of the producer, an equally mediate but indispensable share in it? The field-guard who keeps the crows away, everyone calls productive; why not, then, the soldier who keeps away a far worse enemy from the whole land? . . .

Non-material not necessarily inferior,

Nor can any effectual inferiority of service be claimed, simply because the productive power of one branch of business is measured by the duration of its results, greater than another. What is more perishable than a loaf of bread bought for dinner? . . . The labor expended on persons and on relations is, both as to the extent and duration of its results, much less capable of being estimated than any other, but its capacity of accumulation and its power of propagation are greater than any other. . . .

or less indispensable than material production.

Finally, neither should the greater indispensableness of the more material branches of business be too generally asserted. Agriculture produces grain which is indispensable, and tobacco which is not; industry [produces] cloth as well as lace; commerce draws from the same part of the world rhubarb and edible bird's nests; and so, to *services* belong the indispensable ones of the educator and judge, as well as those of the rope dancer and bear leader, which can be dispensed with. Indeed, the dividing line between material and intellectual production cannot by any means be closely drawn.

Who are productive?

The greater number of recent writers have, therefore, come to be of the opinion that every useful business which ministers to the whole people's requirement of external goods possesses economic productiveness. . . . Every department of business, therefore, for the achievements of which there is a rational demand, and which are remunerated in proportion to their deserts, has labored productively. It is unproductive only when no one will need what it has brought forth, or when no one will pay for it; but, in this case, what is true of the writer without readers — that he is unproductive — and of the singer without hearers, is equally true of the peasant whose corn rots in his granary because he can find no sale for it. . . .

51. The test of productivity[1]

What employments are to be called productive?

From the preceding selection it is clear that modern economists tend to agree that production seeks, not primarily the manufacture of material objects, but the satisfaction of wants. As a general statement, the modern economist classifies as productive all whose efforts contribute toward the satisfaction of wants. But are there no employments which may be called unproductive, in spite of the fact that they "satisfy wants"? It is important that we answer this question, for a great deal of ill-will and dissatisfaction have arisen because of the charge that particular classes come into possession of the good things of life by means of "unproductive" activity. The following discussion of this difficult question is by the American economist, Professor Frank W. Taussig:

A clear example of unproductive labor: the swindler.

When unscrupulous persons solicit funds from the gullible, ostensibly for "investment" or "speculation," and in due time run off with the money, their labor, systematic and strenuous though it may be, is obviously predatory. Not only they, but the clerks and assistants whom they employ (whether these be accomplices or innocent) are unproductive.

The charge that speculative transactions in general are unproductive.

Now it is maintained that, outside the range of operations so clearly predatory as to be made criminal by law, there are others, within the pale of the law, whose economical effect is substantially the same. This is alleged, to take a familiar example, of speculative transactions in general. In our highly organized modern communities, an immense amount of buying and selling is done for a turn in the market. A man buys wheat or cotton which he does not want and which never gets into his possession; he promptly sells his nominal title at an advance in price, pocketing what is called a profit. Is any contribution made to the sum of utilities by such transactions? . . . The most conspicuous operations of the sort are on the stock exchange, where sales and purchases take place on an enormous scale, with no traceable effect in contributing to production or to social income. The business involves an elaborate apparatus, — brokers, clerks, officers, a periodical press of its own. As the clerks

[1] From Frank W. Taussig, *Principles of Economics*. The Macmillan Co., New York, 1921. Vol. I, pp. 25–29.

of a bare swindler are unproductive, so must be those of the broker, if he is himself in the parasitic class.

A similar charge brought against a large part of what is known as "business."

But this sort of allegation has been pushed further. A large part of what is ordinarily called "business" has been placed under the same ban. Not only those who are called speculators, but those who "operate" in real estate — buy and sell land for a margin of profit — and the bankers who "handle" stocks and bonds, are described as mere parasites. Nay, all business men of every kind have been condemned by socialist writers as essentially unproductive — that is, so far as they are not directly doing work of management and superintendence. By them "business" has been adjudged simply a way of securing a gain through the ignorance or weakness of others, and therefore to be condemned as useless to society. . . .

Many speculative transactions are unproductive,

As regards one of the set of operations supposed to be unproductive — speculative dealings — it must be admitted that the charge is in part founded. Though some speculative dealings in commodities and securities serve a useful purpose, others are in large part mere wagers, akin, in their economic effect, to vulgar gambling. Judged by the test which we have set up — whether the labor adds to the sum of utilities — all those who engage in mere wagering speculation are unproductive laborers: not only the principals, but the brokers who execute their orders, the clerks who record them, the mechanics who put together and operate the "ticker" in the broker's office. All belong in the class whose work serves no useful end.

but the greater part of business men's doings is productive.

The same test is to be applied to the activity of business men, but here the balance of gain is much clearer. Though the greater part of speculative dealings is probably of no utility, the greater part of business man's doings has great utility. The indictment of the socialists, which charges that they are predominantly unproductive, overshoots the mark. The function of the manager or leader of industry is of high service in production; even though, like the banker, he may merely advise and select and promote, taking no direct part in the management of industry. He adds conspicuously to the abundance of commodities and the satisfaction of wants.

A qualification.

But it is none the less true that in any large center of industry there will be found plenty of persons engaged in "business" whose doings are essentially parasitic. They pick up a living, perhaps a

very comfortable one, by shreds and patches of dealings, by shrewdness in buying and selling, by waiting for land or securities to rise in value. Often they are sober, solid citizens, personally estimable; so indeed are, as a rule, the stock-brokers who provide the facilities for the gambling speculators. These respectable persons would resent with indignation the suggestion that they belong in the predatory and parasitic class.

A remarkable phenomenon.

But one of the most remarkable phenomena presented to the student of economics is the ignorance of all sorts of persons regarding their place and function in the industrial world. The broker or the merchant, no less than the mechanic clerk, sees the little corner in which he is at work, and knows nothing of its relations to the community as a whole. The respectability of an employment, and even the spirit in which it is pursued, give no certain clue to its effect on the general welfare.

Law aims to suppress predatory doings,

It is the aim of the legal system under which we live — the system of private property — to inhibit predatory doings. Hence not only physical violence, but fraud and deceit, are forbidden and punished. This aim of the law is in the main attained. He who earns his living in a lawful manner commonly contributes to the sum total of satisfactions. He does what another person is willing to pay him for; or, in the more technical language of economics, he brings forth utilities, and so is a productive laborer. . . .

but this is not always possible.

[But] to discriminate clearly between the operations that are in the end helpful toward satisfying wants and those that are not, is sometimes impossible. . . . So it is with the law of fraud and deceit. As long as men are free to choose for themselves and act according to their own judgments, those who are shrewd and watchful will make better bargains than those who are dull and unobservant. When does one man over-reach another, when does he simply leave him to judge for himself as to his own interests?

Absolute perfection in human arrangements is not to be looked for.

The probabilities are that for the sake of securing the large general benefits that flow from private property and competitive dealings, we shall always have to permit some doings that are on the line between the productive and the predatory. If the law brings it about that labor is applied in the main to the satisfaction of wants; if it restrains most of the unproductive doings; if the systems as a whole

work well, and these predatory operations are only its loose ends — it will be better to accept them as inevitable and to set off against them the general benefits. Absolute perfection in human arrangements is not to be looked for.

52. The immediate aim of production[1]

The immediate and the ultimate aims of production.

From the two preceding selections it is clear that utility is a reasonably certain indication as to whether or not an activity is productive. Briefly stated, the *end* of production is the satisfaction of wants. But before we can utilize goods in the process of satisfying our wants directly, we must come into possession of want-satisfying goods. For this reason we may say that the aims of production are two. The immediate aim of production is to increase the supply of those goods which will satisfy wants. This brings us to the notion of wealth, which a French economist, Professor Charles Gide, discusses in the following selection:

The nature of wealth.

We have said that man, in order to satisfy his wants, is obliged to make use of the outer world, — of objects generally known as wealth or riches. In ordinary speech the word "wealth" is synonymous with the word "fortune" and means extensive valuable possessions. It seems strange, therefore, to apply the term "wealth" to a loaf of bread. Yet this is perfectly correct and scientific, if we mean by "wealth" all that can satisfy human wants. The capacity for satisfying human wants is called "utility." Accordingly, to avoid confusion, the term "utilities" would perhaps be better than the term "wealth." . . .

Utility depends upon two things.

Utility depends, first on a want felt by man, and second on an object capable of satisfying that want. . . . Utility arises only with desire and vanishes with the extinction of desire. As a shadow follows a butterfly from one flower to another, so utility accompanies desire, and abides only where desire rests. . . . It matters little that an object has qualities that may satisfy the wants of man, if man is not aware of the fact, or if, because of insufficient power, he is unable to utilize the object. In both cases the object in question is not a utility, and therefore is not wealth. Potatoes were not wealth until

[1] From Charles Gide, *Principles of Political Economy*. D. C. Heath & Co., Boston, 1903; pp. 46–49.

Parmentier, with great difficulty, propagated their use as food. The falls of Niagara did not represent economic wealth until we learned how to utilize their motive power. . . .

An object may constitute wealth regardless of its real nature, if only we *think* it desirable.

Contrariwise, it matters little that an object has received from Nature none of the properties adapting it to the satisfaction of our wants, if only we *think* that it possesses them. For hundreds of years men have attributed wonderful properties to various relics, more or less authentic, which have therefore been regarded as incomparable wealth. There are many mineral waters and patent medicines that command high prices, although their curative powers are exceedingly doubtful. How many things there are whose value and whose utility is due to a passing whim or fancy! . . . In the opinion of scientists, alcoholic drinks do not possess any of the good qualities sometimes attributed to them; they furnish neither strength nor warmth. But what does this matter from the viewpoint of the economist? Millions of men in all countries unfortunately believe them to possess certain desirable qualities; they therefore constitute wealth. . . . Hence we must define wealth as all that mankind *believes* to be useful and can utilize. . . .

Wealth defined.

Wealth includes not only material objects, but services as well.

Many economists, even to-day, declare that the term "wealth" implies material goods, — for wealth is that which can be weighed, measured, and accumulated. This mistake could never have arisen if, instead of the term "wealth," we had used the term "utility"; for it is evident that *acts* may be useful quite as well as *things*. How great is the utility of the *services* rendered by our fellow men! Although the expression has an unpleasant sound, is it not true that we "make use" of our friends, of our employers, of our subordinates, as well as of things? It may be objected that our fellow creatures cannot be counted and evaluated in the same way as material wealth, unless they are slaves, *i.e.*—unless they have become *things*. In reply to this, it must be said that persons are of course not things, and cannot be regarded as wealth. But their *acts* and their *labors*, — the prescription written by a physician, the lesson given by a teacher, the advice of a lawyer, the performance of an actor, the playing of a musician, the service of our domestics, — why should not these be regarded as wealth? Are not all of these acts useful? Are they not all paid for? . . .

53. Man's rôle in production[1]

Man's utilization of Nature as a means of securing possession of wealth.

The *immediate* object of production is thus to come into possession of wealth. The logical question at this point is, *And how does man get control of wealth?* A complete answer to this vital question would require an exhaustive discussion, but fundamentally one important way in which man may come into possession of wealth is by making use of his environment. All of us are of course familiar with the idea that by exploiting Nature we get many things which will satisfy our wants. Indeed the phenomenon of man utilizing Nature is so common that many of us are likely to think of man as having mastered Nature. This is a false notion, for though man makes an extensive use of Nature, Nature is by no means his abject slave. The part which man actually takes in production has been described by the celebrated Austrian economist, Professor Eugen von Boehm-Bawerk, as follows:

To "produce": what does this mean?

To "produce": what does this mean? It has been so often said by economists that the creation of goods is not the bringing into existence of materials that hitherto have not existed — is not "creation" in the true sense of the word, — but only a fashioning of imperishable matter into more advantageous shapes, that it is quite unnecessary to say it again. More accurate, but still exposed to misinterpretation, is the expression that in production natural powers are the servants of man, and are directed by him to his own advantage. If this proposition be taken to mean that man in any case can impose his sovereign will *in place* of natural laws, can at will "bully" natural law into making a single exception at his bidding, it is entirely erroneous. Whether the lord of creation will it or no, not an atom of matter can, for a single moment or by a hair's breadth, work otherwise than the unchangeable laws of nature demand.

Man plays a modest part in production.

Man's rôle in production is much more modest. It consists simply in this — that he, himself a part of the natural world, combines his personal powers with the impersonal powers of nature, and combines them in such a way that under natural law the coöperation results in a definite, desired material form. Thus, notwithstanding

[1] From Eugen von Boehm-Bawerk, *The Positive Theory of Capital.* The Macmillan Co., London, 1891; pp. 12–14.

the interference of man, the origin of goods remains purely a natural process. The natural process is not disturbed by man, but completed, inasmuch as, by apt intervention of his own natural powers, he supplies a condition which has hitherto been wanting to the origination of a material good.

Man moves things.

If we look more closely at the way in which man assists natural processes, we find that his sole but ample contribution consists in the moving of things. "Putting objects in motion" is the idea which gives the key to all human production and its results; — to all man's mastery over Nature and its powers.

Significance of this statement.

And this is so simply because the powers reside in the objects. Now when man by his physical powers — the power of moving things — is able to dictate *where* the object shall be, he obtains a control over the place at which a natural power may become effective; and this means broadly a control over the way and over the time in which it may become effective. . . .

The statement explained and

Of course a pound weight acts as a pound weight and never in any other way. . . . But just because the expression of one and the same natural power always remains the same, results that are extraordinarily different may be obtained by getting it to work in different combinations — just as by adding like to unlike a different sum may be got every time. And so our pound weight, while in itself constantly acting with perfect uniformity, will, according to the different surroundings in which we place it, sometimes hold together a heap of paper on a writing-table, sometimes indicate the weight of another object, sometimes regulate the pressure of steam in the boiler.

clarified.

Again I say a control over the time in which a natural power may become effective. This proposition, also, must not be taken too literally. It must not be imagined that natural powers work intermittently; that man can sometimes bring them to a standstill, sometimes set them working again. On the contrary, natural powers are always at work; a natural power not active would be a contradiction in terms. But it is possible that several powers may be so combined that their activities may for a time mutually balance each other, and the resultant be rest. . . . This suggests how man may get control of the point of time at which a definite resultant

emerges. It is only necessary for him, by skillful use of his power to move objects, to provide the causes of the desired effect, all but one. So long as this one is not present the conditions are unfulfilled, and there cannot be the desired result. But when at the proper moment he adds the last condition, the movement hitherto held in leash, as it were, is suddenly set free, and the desired effect is obtained at the opportune time.

The example of a sportsman firing a gun.

Thus the sportsman moves powder and lead into the barrel of the gun; he shuts the breech; he raises the cock. Each of these things has for long possessed and expressed its peculiar powers. In the powder are present the molecular powers whose energy later on is to expel the shot from the barrel. The barrel now, as formerly, exerts its forces of cohesion and resistance. The trigger which is to let the cock smash down, strains and presses against the spring. Still the arrangement, the disposition of the collective powers, is such that the resultant of their mutual energies is rest. But the sportsman covers the wild fowl with the barrel: there is a slight pressure on the tongue, a little dislocation of the arrangements, and the shot flies. . . .

54. The ultimate aim of production [1]

Wealth may be desired for a number of purposes.

We have seen that the *immediate* aim of production is to increase the supply of wealth, and that one fundamental method of securing wealth is for man to make an intelligent use of Nature. Let us now inquire into the *ultimate* aim of production. Though wealth is the *immediate* aim of production, the *ultimate* aim of the productive process is to enable that wealth to be used to satisfy wants. This is less simple than it sounds, for a man striving to amass wealth may have in mind a variety of intentions as to the ultimate disposition of that wealth. He may intend to use it to satisfy his present needs or his future needs; he may intend to use it to satisfy his own needs, or the needs of some one else. The pursuit of wealth, and the different uses to which it may be put, are discussed in the following passage by an American economist, Professor Johnson:

The great majority of men are mainly occupied with the pursuit

[1] From Alvin S. Johnson, *Introduction to Economics*. D. C. Heath & Co., 1909; pp. 2–4.

of wealth. This is in large measure due to the fact that a man's desire for material welfare is capable of indefinite expansion. Merely to possess food sufficient to satisfy hunger does not content him; the food must be pleasing to the palate as well as nutritious. Warm clothing is an excellent thing, but civilized man demands that his clothes be of good appearance as well as comfortable. A sod house on the prairie is constructed with no great amount of labor and almost no expense . . . yet the modern dweller on the plains would scorn such an abode. . . .

The universal appeal of wealth, and the reason therefor.

To stand well with one's fellows is to most men hardly less important than life itself, and in all human history a chief factor in winning and retaining the esteem of others has been the possession of proper attire and other personal appointments. . . . If my neighbors and friends all have fine houses, I cannot enter my humble dwelling without a sense of inferiority. If they are well dressed, I desire to be equally well dressed. . . .

Some of the ends to which wealth is a means.

But one cannot be well clad or well housed, one cannot without great difficulty be wise or learned or cultured, unless one can command a fair amount of wealth, an amount far in excess of the bare needs of existence. Under modern conditions wealth has become a means — though, of course, not the only means — to most of the things which one can desire. And as it is not in the nature of man to be content for any long time with what he possesses and what he has attained, it is inevitable that his desire for wealth, which is so potent a means for further attainment, should continue unabated. . . .

The desire for wealth not necessarily selfish.

Nothing is more common than to stigmatize the desire for wealth as a narrowly selfish motive. As a matter of fact there are comparatively few men who desire wealth merely for the sake of the personal gratification that they expect to derive from it. It is not too much to say that the normal man is more desirous that his wife and children should enjoy the comforts of wealth than that he should enjoy them himself.

Examples of an altruistic use of wealth.

There are some persons whose desire for wealth is animated chiefly by the needs of a group of persons in no way connected with them by ties of kinship. The founders of free hospitals, orphan asylums, sailors' homes, and the like, are types of this class. Some persons have sympathies so broad as to include all the citizens of a country

within the group for whom they desire the benefits of wealth. The greatness of Pericles consisted partly in his ardor for advancing the material prosperity of the Athenians, even through the exploitation of allied states.

Wealth a means to both good and bad ends.

We may therefore say that the desire for wealth animates the purest and most unselfish of men as well as the most sordid. The desire for wealth is a desire for means to ends, and these may be good or evil. The philanthropist who wishes to found a home for invalid children must have wealth, just as the voluptuary who desires a palace of all delights to please his jaded senses. The economic motive animates both; very likely the philanthropist desires wealth the more ardently. What differentiates the two is the end which the wealth is meant to subserve. To assert, then, that all men are in great measure actuated by economic motives is not to assert that all men are selfish or sordid. It is merely to assert that wealth has been placed between man and the satisfaction of most of his desires; that as he seeks to attain any end whatsoever, he will seek to possess the means to that end. . . .

Questions on the foregoing Readings

1. Into what two classes does Adam Smith divide labor?
2. What, in the opinion of Adam Smith, distinguishes the work of the manufacturer from the work of the menial servant?
3. Give some examples of what Adam Smith considered unproductive labor.
4. Summarize Adam Smith's argument with regard to the difference between productive and unproductive labor.
5. What, according to the modern view, is the end of production?
6. What queries are raised by Adam Smith's view of productive and unproductive labor?
7. What is meant by saying that "production may be non-material as well as material"?
8. Illustrate the statement that non-material production is not necessarily inferior to material production.
9. What is Professor Roscher's conclusion as to the meaning of the term "productive"?
10. What, according to Professor Taussig, is a clear example of unproductive labor?
11. What charge is brought against speculative activities in general?
12. What types of business are called unproductive by socialist writers?

13. What does Professor Taussig say concerning the status of the greater part of business men's doings?
14. What is the aim of the legal system under which we live?
15. Illustrate the difficulty of entirely suppressing unproductive activities.
16. What is the ultimate aim of production? What is the immediate aim of production?
17. What is the nature of wealth?
18. Explain the statement that an object may constitute wealth even though injurious in its effects upon us.
19. Are services wealth? Explain.
20. What is meant by saying that man's rôle in production is a modest one?
21. Explain the significance of the phrase "putting objects in motion."
22. Illustrate man's rôle in production by the example of a sportsman firing a gun.
23. Why are most men occupied with the pursuit of wealth?
24. Name some of the ends to which wealth is a means.
25. Is the desire for wealth necessarily a selfish motive? Explain.

CHAPTER X

THE NATURE OF DEMAND

55. Man wants things[1]

Importance of examining into the nature of human wants.

In the last chapter, we inquired into the nature of production and its relation to the satisfaction of human wants. In this chapter we shall examine somewhat more in detail the scope and characteristics of human wants. This is an important field of investigation, for the great fundamental motive to economic activity is the existence of human wants. The elemental significance of human wants is discussed by an Australian economist, Professor William Edward Hearn, in the following language:

In order to live, every animal must be provided with certain necessities, such as food, drink, air, and warmth.

Life in every form with which we are acquainted, is subject to waste and repair. The living structure in no case continues unchanged, but is maintained by a series of reparative acts. If any of these acts be discontinued, life ceases and the organism quickly disappears. . . . Every animal is possessed of sensibility, and the acquisition of those materials which are necessary to keep in activity its vital powers is attended with pleasure, while the privation of them involves an equally distinct pain. Food, drink, air, and warmth are the most urgent of these necessities. If these or any of them are withheld beyond a certain small degree or a certain brief time, the animal must die.

Man no exception to this rule.

These necessities man shares with all other animals. He must have a constant supply of pure air; he must have a sufficiency of such food and drink as his organs can assimilate. In colder climates at least (since Nature has not furnished him with the protection that the lower animals enjoy), he must have more ample means than they require of retaining the vital heat. If any of these essential conditions be unfulfilled, the human animal, like any other animal, must

[1] From William Edward Hearn, *Plutology*. George Robertson & Co., Melbourne, 1863; pp. 12–15.

die. If they be but partially fulfilled, his powers, whether muscular or nervous, are proportionately feeble. If he has complied with all these conditions of his existence, these powers are in a proper state for their due exercise. The satisfaction, therefore, of his primary appetites is imperative upon man. Of all his wants, they are the first in the degree of their intensity, and in the order of time they are the first which he attempts to gratify.

The wants of man contrasted with the wants of the lower animals.

But while the superior organism thus possesses all the desires that belong to the inferior, it has also by virtue of that superiority many more. Man has not only the mere animal faculties and their corresponding wants; he has also beyond all other creatures other faculties which, beside their own requirements, seriously affect the gratification of the primary appetites. For man is able not merely to satisfy his primary wants, but to devise means for their better and more complete gratification. The food of the dog or of the horse of our time is, except where it has been modified by man, the same as that of the dog or the horse a thousand years ago. The bee constructs its cell, the spider spins its web, the beaver builds its dam, with neither greater nor less skill than that with which bees and spiders and beavers in all known times have worked. In the quality of their work, in the kind of material they employ . . . there is no improvement and there is no decline.

Improvement and

Man alone, of all known animals, exhibits any such improvement. He alone has cooked his food. He alone has infused his drink. He alone has discovered new kinds of food or drink. He alone has improved the construction of his dwelling and has provided for its ventilation. He alone clothes his body, and varies that clothing according to the changes of the temperature, or his own ideas of decoration. He alone is not content with the mere satisfaction . . . of his physical wants, but exercises a selection as to the mode of their satisfaction. . . .

the craving for further improvement.

As the attempt to satisfy the primary appetites thus gives rise to new desires, so the actual increase of these desires tends of itself to a still further development. The enjoyment that a man has once received he generally desires to renew. The mere repetition soon becomes a reason for its further repetition. By the powerful influence of habit the desire becomes a taste, and the taste quickly passes into

an absolute want. Nor is this all. The mere exercise of the faculties strengthens them, and gives rise to a comparison of results and a desire for further improvement. The man whose senses are educated to a certain point, who has had to a certain extent experience of different modes of satisfying his desires, and has formed a judgment upon the comparative efficiency of these modes, will seldom in favorable circumstances stop at that point. Not merely would a return to what pleased his untaught faculties be intolerable to him, but the actual enjoyment which he derives from his discovery stimulates him to further advances, and suggests the modes of obtaining them. . . . [As our knowledge of the properties of matter and our skill in their adaptation increase] and as the limit they present recedes, the range of our tastes and of our artificial wants increases with them. . . .

56. The type of things wanted by man [1]

Useful things divisible into two classes.

That man desires things which will satisfy his wants is clear from the preceding discussion. Any object which will increase the well-being of man may be considered as useful or serviceable. And yet we are accustomed to ignore, or to treat with carelessness, many things which are of profound importance in our lives. Air, for example, is indispensable to human life, yet we do not make it the aim of our industrial efforts. We must, therefore, divide useful things into two classes. In the first class we place useful things which are so plentiful as to be had without effort. Air and sunlight are examples of this class of things. In the second class we place useful things which cannot be had without effort, as, for example, food and clothing. We give a great deal of attention to securing articles in this second class simply because they cannot be had freely; we are rarely conscious of wanting articles in the first class because they are so plentiful as to be had without effort. The following discussion of man's attitude toward these two classes of things is by Professor von Boehm-Bawerk:

A cup of water

A man dwells beside a bubbling spring of water. He has filled his cup, and the spring goes on pouring out enough to fill a hundred

[1] From Eugen von Boehm-Bawerk, *The Positive Theory of Capital*. The Macmillan Co., London, 1891; pp. 133–135.

other cups every minute. Another man is traveling in the desert. A long day's journey over glowing sand still divides him from the nearest oasis, and he has come to his last cup of water. What is the relation in each case between the cup of water and the well-being of its owner? A single glance shows us that the relation is very dissimilar, but wherein lies the difference?

is of no consequence to a man dwelling beside a spring,

Simply that in the former case we have only the lower grade of the relation we call well-being, that of usefulness; in the latter case we have the higher grade as well. In the first case, just as in the second, the cup of water is useful, that is, capable of satisfying a want, and, moreover, in exactly the same degree. . . . On the other hand, the two cases [are essentially different]. . . . Looking at the former case we must say that the possession of the cup of water does not provide the man with one single satisfaction more, nor its loss with one satisfaction less, than he could have obtained without it. If he has that particular cup of water he can quench his thirst with it; if he has not that cup — well, he can quench his thirst quite as well with one of the hundred others which the spring puts freely at his disposal every minute of the day. If he likes, therefore, he may make that one cup the *cause* of his satisfaction by quenching his thirst with it; an *indispensable condition* of his satisfaction it cannot be; for his well-being it is dispensable, unimportant, indifferent.

but to a man in a desert it may be of great importance.

It is quite otherwise in the second case. Here we must say that if our traveler had not that one last cup he could not quench his thirst; he must bear its pangs unassuaged, perhaps even succumb to them. In the cup of water then, in this case, we see not merely a sufficient cause, but the indispensable condition. . . . Here it is of consequence, even of urgency; it possesses importance for his well-being.

Significance of this distinction.

Now it is not too much to say that the distinction here drawn is one of the most fruitful and fundamental in the whole range of [economics.] It does not owe its existence to the microscope nor to any hair-splitting distinctions of the logician. It has its life in the world of men, who know it and use it and take it as a guide for their common attitude toward the world of goods, not only as regards the intellectual estimate they apply to these goods, but as regards their actual business transactions.

Goods which are useful but plentiful we ignore,

About goods which are only useful the practical business man is careless and indifferent. The academic knowledge that a good may be "of use" cannot evoke any efficient interest in the good, in the face of the other knowledge that the same use may be had without it. Such goods are practically naught as regards our well-being, and we treat them as such; we are not put out when we lose them, and we make no effort to gain them. Who would fret at, or make an effort to prevent, the spilling of a cup of water at the spring, or the escape of a cubic foot of atmospheric air?

but useful goods which are also scarce we take pains to acquire.

Where, on the other hand, the sharpened glance of the economic man recognizes that some satisfaction, well-being, gratification, is connected with a particular good, there the effective interest which we take in our own well-being is transferred to the good which we recognize as its condition; we see and value our own welfare in it; we recognize its importance for us as value; and, finally, we develop an anxiety, proportioned to the greatness of that importance, to acquire and hold the good. . . .

57. The creation of wants: Radio [1]

The causal relation between wants and production.

It is instinctive, we may say, for man to want things which will increase his well-being. In one sense, then, we may say that production is the *result* of man's instinct to satisfy his wants. To this extent production may be regarded as the effect of a cause. But once this causal relation between wants and production has been established, it may often happen that a want does not exist, or at least is not in evidence, until there has been placed upon the market a good designed to satisfy that type of want. In a highly-developed industrial society, indeed, producers often turn out goods or offer services in *advance* of any expressed demand, and thus stimulate or actually create a new want. Radio is a striking illustration of this phenomenon. Practically undreamed of a few years ago, the radio phone has become, for many people, an object of great desire. The following selection is from *The Journal of Commerce and Commercial Bulletin*, for Tuesday, May 2, 1922:

Chicago, May 1 (By Associated Press). — A new infant industry,

[1] From *The Journal of Commerce and Commercial Bulletin*, New York, Tuesday, May 2, 1922; p. 3.

the manufacture of radio equipment, has sprung up with an amazing growth within a year, and much of it within a few recent weeks. From a few manufacturing shops a year ago to thousands now, an increase of 60,000 per cent in demand in two years; a business in which both boys and great manufacturers are taking profits; all this is the romance of the new industry.

A new industry called into existence by the commercialization of radio.

The demand [for this novelty] is at present as tremendous as it has been sudden. The new, small concerns manufacturing radio supplies are estimated by the Radio Corporation of America as numbering thousands. Figures of the same corporation show that whereas two years ago 4,000 tubes a year were in demand, this year probably 200,000 tubes a month will be called for.

The sudden and tremendous demand for radio equipment.

Reports gathered from a number of states by the Associated Press show that many boys and other amateurs are constructing and selling outfits. Three years ago three boys in Chicago, sixteen and seventeen years old, began to make radio outfits. They are now incorporated and carrying on a large business. . . . There are now 600,000 receiving sets in the United States, according to the estimates of several companies. Of these 100,000 were said to be in the Middle West, and 15,000 to 25,000, according to varying estimates, in Chicago.

Dealers declared that the suddenness of growth of this infant industry, and the fact that the number of plants varies from day to day, made it impossible accurately to gauge its proportions. One dealer said that it was impossible to estimate with any certainty the extent of the demand, inasmuch as buyers in their eagerness to get equipment as soon as possible are placing orders with dozens of dealers at once, and purchasing from the first dealer who is ready to deliver. For that reason, it was stated, what might seem to be a demand involving $30,000,000 might resolve itself into a demand involving $2,000,000.

Uncertainty as to the actual demand.

"There are more bootleggers in the radio business than in the whiskey business," one dealer asserted. "People get hold of parts and sell them for exorbitant prices. I have known a single tube which is regularly sold for $5 to bring $15. Some of these spurious dealers come in and try to bribe our clerks to get them parts."

Speculation in radio.

An electrical supply house at Toledo, Ohio, has begun to install what it has announced will be one of the most complete radio manu-

Development of the business in Ohio,

facturing plants in the world. It proposes to employ one hundred workmen at the outset, and more as the department is enlarged, and plans for a daily capacity of five hundred complete radio receiving and transmitting sets. . . .

Illinois,

There are eighteen regularly established concerns in Chicago manufacturing radio equipment, aside from many boys who assemble parts and distribute the sets thus constructed among their friends.

Missouri,

There are two hundred and four companies in Missouri manufacturing radio supplies. Of these eleven are in St. Louis. In St. Louis a twelve-year-old boy, twenty-five business men, several automobile mechanics, one plumber, one butcher, and several high school pupils are making and selling radio supplies during their spare time.

Wisconsin,

About twenty-five boys are constructing and selling radio equipment in Milwaukee, Wis. They sometimes receive $50 or higher for their outfits, it was said. The large department stores of Milwaukee are handling sets, and one of them has a large window trimmed to represent a family sitting around a room listening to a radio concert.

Texas,

Dallas, Texas, reported fourteen dealers in radio equipment, one of which sold such supplies exclusively, having built up its trade within the last few months. . . .

Kentucky,

A few centers reported that no manufacturers had established themselves in their vicinity so far, but that dealers were anxious to handle equipment "when they could get it." In Louisville, Ky., equipment is sold by dealers in parts, and experts are required to assemble it. One automobile concern there has undertaken to assemble parts as a side line.

and Kansas.

Two new factories have just been organized in Kansas, one at Wichita and one at Topeka.

58. The fear that wants will go unsatisfied [1]

The demand for cotton illustrates the fear that wants will go unsatisfied.

The excessive demand for radio equipment, described in the preceding selection, was due to the belief that such equipment had the capacity to satisfy an intense want. The more intensely we desire an object, the more we are likely to be concerned over the supply. The demand for cotton also illustrates this point. Cotton is a basic

[1] From the New York *Times*, Tuesday, May 9, 1922; p. 30.

raw material for the textile industries, and most of the world's cotton comes from southern United States. Prospective purchasers of cotton are therefore keenly interested in the American cotton crop. The weather, insect pests, and other influences are carefully and anxiously watched, lest a decreased supply mean that there will not be enough cotton to satisfy all those who want this important raw material. The effect of a threatened decrease in the cotton supply upon the demand is illustrated by the following extract from the New York *Times*, for May 9, 1922:

Soaring cotton prices because of the fear that the crop will be injured by rain and the boll weevil.

As has been feared, clear weather in the Southwest did not last long, and the reappearance of rains threw the cotton market into a state of renewed excitement yesterday. Nervousness spread to Liverpool, while New Orleans showed an even greater advance than New York. Prices opened up a quarter of a cent, and then rose violently. When official reports confirmed private rain advices, enormous trade and speculative purchases resulted. Conditions in Texas, Oklahoma, and Arkansas are increasingly unfavorable, causing a degree of apprehension not experienced in a great many years thus early in the season. This is not due alone to excessive rainfall, but to the fact that a delayed start will seriously increase the boll weevil menace later on. Prices rose from 58 to 78 points. . .

Trading starts with a rush.

Trading started with a rush. The advance was progressive, July opening only 11 points higher, October 13 to December 23. When distant months were reached, quotations proved nearly 30 points up from Saturday's closing. Buying orders poured into the ring from all quarters, with similar conditions prevailing in both Liverpool and New Orleans. Foreign trading began at a decline from Friday's level, but by the time New York opened with a rise of over $2 a bale, American reckoning, had recovered.

Excited buying

In addition to the strength in contracts, spot sales increased to 14,000 bales, the largest figures in weeks. But New Orleans led all three markets, showing a decided change in conditions in that direction. For four days last week New Orleans showed extreme reluctance to continue the advance. But from the opening yesterday excited buying took place there, bringing about the highest prices of the movement, and exerting a material influence on local sentiment. Soon after the opening heavy buying throughout the list ran both

October and December over 19¼ cents before any substantial volume of realizing was encountered.

and continued anxiety.

Resumption of the buying movement that halted under profit-taking the latter part of the week was due to rainfall and predictions of unsettled weather in many sections of the [cotton] belt. Instead of a continuation of favoring conditions, rains appeared before sufficient time had elapsed to dry out the soil. Anxiety over the outlook is now such that buying is started whenever unfavorable predictions appear. After a poor start over so large an area of Central and Western districts, unusually favorable conditions will be essential to allay apprehension. While over Sunday weather proved generally favorable in Eastern sections, heavy rains fell in Oklahoma and Arkansas. It was also raining in parts of Texas, according to private reports.

The market active at advancing prices

Both trade and speculative buying broadened appreciably, commission houses entering the market on a large scale. The sale of blocks of July from time to time produced reactions, but these proved short-lived and unimportant. Contracts disappeared steadily without coming back into the ring, and an enormous quantity of cotton changed hands at advancing quotations. . . .

59. The variability of wants[1]

Variability is a characteristic of human wants.

The student who will take the trouble to glance back over the preceding selections in this chapter cannot but be impressed with the fact that variability is an important characteristic of human wants. Our wants are constantly expanding, changing, reacting to such influences as taste, change in the supply, and price. An adequate discussion of this characteristic of wants would require many pages, but some of its phases may be appreciated from the following brief summary by Professor Gide:

Human wants are unlimited in number.

(1) Human wants are unlimited in number. This feature distinguishes man from the inferior animals and is the mainspring of civilization in the strictest sense of the word. To civilize a people is to increase its wants. . . . We are to-day conscious of a thousand wants that were unknown to our grandfathers, — wants of comfort,

[1] From Charles Gide, *Principles of Political Economy*. D. C. Heath & Co., 1903; pp. 41–45.

hygiene, cleanliness, education, travel, intercourse. It is certain, also, that our grandchildren will feel new wants. If we should discover, on another planet, beings superior to men, we should find among them a multitude of wants of which we in this world know nothing. . . .

Wants are limited in intensity.

(2) Wants are limited in intensity. This is one of the most important propositions in political economy. . . . Wants are limited in intensity because every want is satiable, *i.e.*, a certain amount of a certain kind or kinds of wealth will satisfy it completely. It is evident that a man needs only a certain amount of water to slake his thirst. We may say that a want decreases in intensity up to the point of satiety. Then the want is extinguished and is replaced by disgust or even suffering. It is torture to suffer thirst, but it was also torture, in the Middle Ages, to undergo the "watering operation," by which the victim was compelled to absorb excessive quantities of water.

This is true of both physiological and social wants.

The more natural a want is, *i.e.*, the more physiological its nature, the more clearly drawn is its limit. It is easy to tell how many pounds of bread and how many pints of water a man needs. But the more artificial or social a want is, the more elastic is the limit marking its satisfaction. It is certainly not an easy matter to tell how many horses would satisfy a sportsman, or how many dresses would lead a fashionable woman to cry "Enough!" or the number of rubies desired by an Indian rajah, or how much money would completely satisfy the wants of a civilized man. Nevertheless, we may say that even for these wants there is a limit; in these respects, too, satiety is inevitable. At all events each new possession gives less pleasure than the preceding one.

Wants are competitive.

(3) Wants are competitive, *i.e.*, one want can often be developed only at the expense of other wants which it abolishes or absorbs. . . . This simple fact is the basis of an important economic law called the law of the substitution of wants. Progress consists generally in replacing inferior wants by higher wants. . . .

Wants are complementary.

(4) Wants are complementary; they form groups. This seems to be antagonistic to the above-named principle, yet it is not so. . . . There is competition among wants of the same sort, among wants that are interchangeable; but there is harmony among wants of

different kinds. The want of food is allied, in civilized societies, with the want of tables, chairs, table-cloths, napkins, glassware, knives, and forks. In order to obtain a maximum of enjoyment, many pleasures must be combined, and thus give rise simultaneously to large groups of wants.

Wants are influenced by habit

(5) Wants, even acquired or artificial wants, tend to become a matter of habit. They become, as the popular expression aptly puts it, our "second nature." This . . . is of great importance in the determination of wages. The customary plane of existence — the standard of living — cannot easily be lowered. There was a time when workmen wore neither shirts nor shoes, when they had neither coffee nor tobacco, when they ate neither meat nor white bread, but to-day these wants are so deep-seated, they form so fundamental a part of our nature, that a workman, if he were deprived of them and suddenly reduced to the condition of his social equals in the time of good King Henry, would probably perish.

and by heredity.

If we add, finally, that a habit which has been transmitted from generation to generation tends in time to become established through heredity, and that our senses are every day becoming more subtle and more exacting, we shall understand the despotic power that may eventually be acquired by a want that originally seemed to be futile or insignificant.

A qualification.

It must not be supposed, however, that wants once acquired are perpetual. There is, as we have said, a competition or rivalry among some wants. Some of them are vanquished and disappear. The show-cases of our museums are filled with objects that at one time satisfied a real want, but which now correspond to no human desire save that of the collector of curios. But wants perish only when they are supplanted by others that are more strongly felt or whose satisfaction affords greater enjoyment.

60. The concept of marginal utility[1]

As a final step in the discussion of human wants, let us notice the principle which underlies the satiability of wants. Whether the want is physiological or social, Professor Gide pointed out in the

[1] From Eugen von Boehm-Bawerk, *The Positive Theory of Capital*. The Macmillan Co., London, 1891; pp. 149–151.

preceding selection, it tends to decline in intensity as the individual applies himself to satisfying it. As a result of the operation of this principle of diminishing utility we arrive at the concept of marginal utility. Marginal utility and value are closely related, for the value of a good, we say, is measured by the importance of that concrete want which is the *least urgent* among the wants that are met from the available stock of similar goods. In the following selection Professor von Boehm-Bawerk discusses the proposition that the value of a good is measured by its marginal utility:

Marginal utility determines the value of a good.

This proposition is the key-stone of our theory of value. But it is more. In my opinion it is the master-key to the action of practical economic men with regard to goods. . . . Those who have observed practical life closely will, I think, be convinced that this claim is not exaggerated. Rightly to observe and rightly to interpret what has been observed, however, is an art not always easy. . . . We begin, then, with an illustration of the greatest conceivable simplicity.

Importance of this proposition.

A colonial farmer, whose log hut stands by itself in the primeval forest, far away from the busy haunts of men, has just harvested five sacks of corn. These must serve him till the next autumn. Being a thrifty soul he lays his plans for the employment of these sacks over the year. One sack he absolutely requires for the sustenance of his life till the next harvest. A second he requires to supplement this bare living to the extent of keeping himself hale and vigorous. More corn than this, in the shape of bread . . . he has no desire for. On the other hand, it would be very desirable to have some animal food, and he sets aside, therefore, a third sack to feed poultry. A fourth sack he destines for the making of coarse spirits. Suppose, now, that his various personal wants have been fully provided for by this apportionment of the four sacks, and that he cannot think of anything better to do with the fifth than feed a number of parrots, whose antics amuse him.

A farmer has five sacks of corn which he plans to use to satisfy wants

Naturally these various methods of employing the corn are not equal in importance. If, to express this shortly in figures, we make out a scale of ten degrees of importance, our farmer will naturally give the highest figure 10 to the sustenance of his life; to the maintenance of his health he will give, say, the figure 8; then, going down the scale, he might give the figure 6 to the improvement of his fare

of varying importance.

by the addition of meat, the figure 4 to the enjoyment he gets from the liquor, and, finally, to the keeping of parrots, as expressing the least degree of importance, he will give the lowest possible figure 1.

The value to him of *one* sack of corn

And now, putting ourselves in imagination at the standpoint of the farmer, we ask, What in these circumstances will be the importance, as regards his well-being, of *one* sack of corn? This, as we know, will be most simply tested by inquiring, *How much utility will he lose if a sack of corn gets lost?*

is measured by the utility of the least important use to which any one sack could be put.

Suppose we carry out this in detail. Evidently our farmer would not be very wise if he thought of deducting the lost sack from his own consumption, and imperiled his health and life while using the corn as before to make brandy and feed parrots. On consideration we must see that only one course is conceivable: with the four sacks that remain our farmer will provide for the four most urgent groups of wants, and give up only the satisfaction of the last and least important, the marginal utility — in this case, the keeping of parrots.

The only difference, then, that his having or not having the fifth sack of corn makes to his well-being is that, in the one case, he may allow himself the pleasure of keeping parrots, in the other he may not; and he will rightly value a *single* sack of his stock according to this unimportant utility. And not only one sack, but *every* single sack, for if the sacks are equal to one another, it will be all the same to our farmer whether he lose sack A or sack B, so long as, behind the one lost, there are still four other sacks for the satisfying of his more urgent wants.

The illustration varied.

To vary the illustration, assume that our farmer's wants remain the same, and that he has only three sacks of grain. What now is the value of one sack to him? The test again is quite easily applied. If he has three sacks he can and will provide for the three most important groups of wants. If he has only two sacks, he will be obliged to limit himself to the satisfying of the two most important groups and give up the satisfying of the third, that of animal food. The possession of the third sack — and the third sack, be it remembered, is not a definite sack but any of the three sacks, so long as there are other two behind it — directly carries with it, therefore, the satisfaction of his third most important want; that is, the last or

least of those wants covered by the three sacks which constitute his total stock. . . .

Finally, suppose that our farmer's wants remain as before, and that he possesses only a single sack of corn. In this case it is perfectly clear that all less important methods of employing the corn are out of court, and that it will be devoted to and spent in sustaining the farmer's life — a function for which it just suffices. And it is as clear that if this single sack fails the farmer will no longer be able to support himself in life. His possession of the sack, therefore, means life; his loss of it means death; the single sack of corn has the greatest conceivable importance for the well-being of the farmer. And all this is still in conformity with our principle of marginal utility. The greatest utility — the preservation of life — is here the sole, as well as the last or marginal utility. . . . Conclusion.

Questions on the foregoing Readings

1. Why is it important to inquire into the nature of human wants?
2. Compare man with the lower animals with reference to wants.
3. What are some reasons why the circle of man's wants is steadily widening?
4. Into what two classes are useful things divisible?
5. Comment upon the importance of a particular cup of water to a man who dwells beside a spring.
6. Contrast the value placed upon a cup of water by this man with the value attributed to a cup of water by a traveler in the desert.
7. What is the significance of this distinction?
8. What is our attitude toward goods which are useful but plentiful?
9. Contrast this with our attitude toward goods which are not only useful but scarce.
10. What is meant by saying that in one sense production is the "effect of a cause"?
11. How many producers create new wants?
12. Describe the sudden rise of the radio industry.
13. What can be said as to the uncertainty of the actual demand for radio in 1922?
14. Sketch, briefly, the development of the radio business in various parts of the country.
15. Trace the effect of bad weather upon the demand for cotton.
16. What is the relation between the boll weevil menace and the demand for cotton?
17. Describe the influence of the weather upon the prices paid for cotton.

18. What is meant by saying that "variability is a characteristic of human wants"?
19. Discuss the statement that "wants are limited in intensity."
20. Explain the statement that "wants are complementary."
21. What effect have habit and heredity upon wants?
22. What determines the value of a good?
23. Explain clearly and in detail the value of a sack of corn to a farmer who originally had five sacks, but who is deprived of one of these.
24. Suppose that the farmer's wants remain the same, and that he has now only three sacks of grain. What now is the value of one sack to him?
25. What would be the value of the corn to him if he were reduced to a single sack?

CHAPTER XI

THE NATURE OF SUPPLY

61. Desirable goods are scarce[1]

Scarcity the great obstacle to the satisfaction of human wants.

In the last chapter we had a good deal to say about the wants of man. We have now to notice that the great obstacle to the satisfaction of human wants is scarcity. By scarcity we mean that there is less of a given commodity, at a given time and place than is desired. Scarcity thus implies insufficiency to satisfy desires. Of course, there is a great abundance of many useful things, such as air and sunshine, but by far the majority of things which we consider desirable are scarce. Nature's storehouses may be rich in the raw materials out of which houses, automobiles and other goods may be made, but these goods cannot come into existence until we take the trouble to work over the raw materials furnished by Nature. The importance of man's labor in creating a supply of desirable goods is developed by Professor Gide as follows:

Labor is the price of all good things

To achieve its ends, and principally to satisfy the necessities of existence, every living thing is obliged to do a certain amount of work. The seed has to toil to raise its covering, the hardened crust of the earth, and then breathe the air and feel the light. While clinging to its bed, the oyster opens and closes its shell in order to draw from the surrounding water the first elements of nourishment. The spider spins its web, the fox and wolf labor while they hunt their prey. Man is not exempt from this universal law; he, too, has to persevere and toil in order to supply his wants. As Xenophon says, "The gods sell us all good things at the price of our labor." Among plants this striving is unconscious, among animals instinctive; with man it becomes a voluntary and conscious act, and its name is *labor*.

No product without labor.

But is there not some wealth that man can obtain without work, such wealth as Nature lavishly bestows on him?

[1] From Charles Gide, *Political Economy*. D. C. Heath & Co., 1891; pp. 108–110.

It must first of all be observed that there is not a single product which does not in some measure presuppose the intervention of labor. That follows from the meaning of the word "product," *productum*, "drawn from somewhere." But what could have performed this drawing or extraction but the hand of man? For the application of fruits to the satisfying of our wants, even those fruits which Nature has given us, such as the bread-tree fruit, the banana, dates, or those shellfish which in southern lands are called sea-fruit, man must give himself the trouble of gathering them. Now, this gathering is clearly labor, and under certain circumstances work of an exceedingly laborious nature.

This is true even of "natural" products.

It should further be remarked that a just conception is not usually made of the important part played by labor, even in the formation of those products which are often very inaccurately termed "natural." We are too ready to believe that everything which grows on the earth — cereals, vegetables, fruit — all are due to the generosity of [Nature]. As a matter of fact, most of the plants which supply man with food have been, if not created, at any rate so modified by the cultivation and the labor of hundreds of generations, that botanists cannot discover their original types.

Some examples.

Wheat, maize, lentils, beans, have been found nowhere in the wild state. Even such species as are met with in a state of nature are wonderfully different from their cultivated [relatives]. Between the acid berries of the wild vine and our grapes, between the edible vegetables and succulent fruits of our kitchen-gardens and orchards and the tough roots and the bitter or even poisonous berries of wild varieties, there is a vast difference, so great, indeed, that these fruits and vegetables may be regarded as artificial products, that is to say, as actual creations of human industry. . . .

Natural wealth

It is true, however, that some wealth is not the product of labor, precisely because it is not a product, *i.e.*, it pre-exists before any act of production. I refer to the earth and all the organic matter or inorganic substances with which it supplies us, — the bubbling spring of water or petroleum, the growing forest, the natural prairie [etc.]. . . .

may exist independently of human labor,

These, surely, constitute wealth . . . they clearly exist independently of any labor done by man. Still for a just conception of the part played by labor in production, we must add two further points:

but it serves no useful purpose until discovered

First, such wealth does not exist . . . as useful and valuable objects, until human intelligence has been able, firstly, to discover their existence, and furthermore to perceive that they possess qualities which render them fit to satisfy any of our wants. . . .

and subjected to human labor.

[Second], such wealth cannot be utilized, *i.e.*, employed for the satisfaction of man's wants, until it has been subjected to more or less labor: in the case of virgin soil, till it has been cleared and opened out; with a mineral spring, till it has been secured and bottled; with mushrooms or shells, till they have been gathered.

Conclusion.

Thus even with wealth, which is termed natural, labor is seen to be a real agent of production; for without it, such objects would be virtually non-existent for us, inasmuch as they would serve no purpose for us. . . .

62. The origin of capital[1]

Capital includes all man-made objects which aid in production.

The last sentence of the preceding selection is a significant one, since it warns us that however extensive natural wealth may be, such wealth will serve no purpose for us until we take the trouble to apply labor to it. Let us notice here that man is physically weak, and that very often he finds it difficult, both to secure possession of natural products and to utilize them effectively. In his contest with Nature, however, man has hit upon the principle of capital. We mean by this that he increases his power over Nature by contriving tools, implements, or machines which he uses in production. These and other devices which man has contrived to aid him in production we call *capital*. The origin of primitive capital is described by an early American economist, Professor Francis A. Walker, as follows:

The origin of capital: The miseries of a scanty food supply

Let us take the case of a tribe dwelling along the shore, and subsisting upon fish caught from the rocks which jut into the sea. Summer and winter together, good seasons and bad, they derive from this source a scanty and precarious subsistence. When the fish are plentiful, the people live freely, even gluttonously. When their luck is bad, they submit to privations which involve suffering, reaching sometimes the pitch of famine.

Now let us suppose that one of these fishermen, moved by a strong

[1] From Francis A. Walker, *Political Economy*. Henry Holt & Co., New York, 1883; pp. 63–64.

stimulate a fisherman to accumulate a store of fish.

desire to better his condition, undertakes to lay by a store of fish. Living as closely as will consist with health and strength, he denies himself all superfluity, even at the height of the season, and little by little, accumulates in his hut a considerable quantity of dried food. This is *wealth*. Whether it shall become *capital* or not depends upon the use which is to be made of it. If destined to be merely a reserve against hard times, it remains wealth, but does not become capital.

He subsists on this store of food while he makes a canoe.

But our fisherman, in laying by his store of fish, has higher designs than to equalize the food consumption of the year. As the dull season approaches, he takes all the food he can carry, and goes into the hills, where he finds trees whose bark can be detached by sharp stones. Again and again he returns to his work in the hills, while his neighbors are painfully striving to keep themselves alive. At the

The result.

end of the dull season, he brings to the water a canoe, so light that it can be borne upon his shoulders, so buoyant that he can paddle in in and out to the "banks" which lie two or three miles from shore, where in one day he can get as many fish as he could catch from off the rocks in a week.

The canoe is capital, and the fisherman is a capitalist.

The canoe is capital; the fisherman is a capitalist. He can now take his choice of three things. He may go out in his canoe and bring home supplies of fish which will allow him to marry and rear a family in comfort, and with his surplus hire some of his neighbors to build him a hut, their women to weave him blankets, and their children to bring water from the spring, and wait upon his family; or, secondly, he may let out the canoe to some one who will be glad to get the use of it on payment of all the fish which one family could fairly consume, and himself stay at home in complete idleness, basking in the sun, and on stormy days seeking refuge in his comfortable hut; or, which is perhaps most likely, he may, thirdly, let out the canoe, and himself turn to advantage the knowledge and experience acquired in its construction, by making more canoes.

This primitive capitalist makes more and more canoes, thus adding to his supply of capital.

Again and again he will reappear upon the shore, bringing a new canoe, for the use of which a score of his neighbors will clamorously compete. And later canoes, be it noted, are made at a smaller cost of effort and sacrifice on the part of the builder. He has become familiar with the groves where the trees are largest, and the trunks most clear of branches; he has acquired a knack which makes it

almost a pleasure to strip off the vast rolls of tough, elastic bark; he never spoils his half-completed work, now, by a clumsy movement or an ill-directed blow. Moreover, his personal toil is reduced to a minimum, for he has hired men to carry his burdens, and do all the heavy labor. . . .

63. Types of capital[1]

The importance of capital in modern industry.

We have defined capital, and we have seen how, in a primitive community, capital might originate and develop. But although capital may exist under a very simple form of industrial society, it is in a highly-complex industrial organization, such as now exists in the United States, that capital attains its greatest significance. In our day capital has become so important a factor in production that we often speak of the present industrial system as the "capitalistic" system. Upon every hand we see capital existing in the most diverse forms, but everywhere utilized as an aid in production. A few of the forms which capital may take are enumerated by Professor Roscher in the following selection:

The capital of a nation includes

Capital we call every product laid by for purposes of further production. Hence the capital of a nation consists especially of the following classes of goods:

soil improvements,

A. *Soil-improvements*, for instance, drainage and irrigation works, dikes, hedges, etc., which are, indeed, sometimes so far a part of the land itself that it is difficult to distinguish them from it. To this class belong all permanent plantations.

buildings,

B. *Buildings*, which embrace workshops and storehouses as well as dwellings; also artificial roads of all kinds.

tools, machines, and utensils,

C. *Tools, machines and utensils* of every description; the latter especially for personal service, and for the preservation and transportation of other goods. A machine is distinguished from a tool in that the moving power of the former is not communicated to it immediately by the human body, which only directs it; while the latter serves as a species of equipment, or as a better substitute for some member of man's body. To be of advantage, these three kinds of capital must save more labor or fatigue than it has cost to produce them. . . .

[1] From William Roscher, *Principles of Political Economy*. Henry Holt & Co., New York, 1878. Vol. I, pp. 150–155.

work animals,

D. *Useful and laboring animals*, in so far as they are raised, fed, and developed by human care.

raw materials,

E. *Materials for transformation:* either the principal material which constitutes the essential substance of a new product, the yarn of the weaver for instance, the raw wool, silk, or cotton of the spinner; or the secondary material which, indeed, enters into the work, but only for purposes of ornamentation, as gold-leaf, lac, colors, etc.

auxiliary substances,

F. *Auxiliary substances*, which are consumed in production, but do not constitute a visible part of the raw product, as coal in a smithy, powder in the chase or in mining; muriatic acid in the preparation of gelatin, chlorine in bleaching, etc.

means of subsistence,

G. *Means of subsistence* for the producers, which are advanced to them until production is complete.

commercial stock,

H. *Commercial stock*, which the merchant keeps always on hand to meet the wants of his customers.

money,

I. *Money*, as the principal tool in every trade. . . .

and "incorporeal capital."

J. There is also what may be called *incorporeal capital*, which is as much the result of production as any other capital, and is used in production, but which for the most part is not exhausted by use. There are species of this kind of capital which may be transferred, as for instance, the good-will of a well-established firm. Others are as inseparably connected with human capacity for labor as soil-improvements with a piece of land, [as for example,] the greater dexterity acquired by a workman through scientific study, or the greater confidence he has acquired by long trial. . . .

Most capital is in a state of constant transformation.

The greater portion of the national capital is in a state of constant transformation. It is being continually destroyed and reproduced. But from the standpoint of private economy, as well as from that of the whole people, we say that capital is preserved, increased, or diminished, according as its value is preserved, increased, or diminished. . . . [As John Stuart Mill says,] "The greater part in value of the wealth now existing . . . has been produced by human hands within the last twelve months. A very small proportion indeed of that large aggregate was in existence ten years ago; of the present productive capital of the country, scarcely any part except farm-houses and a few ships and machines; and even these would not, in most cases, have survived so long, if fresh labor had not been

employed within that period in putting them into repair. . . . Capital is kept in existence from age to age like population, not by preservation, but by reproduction." . . .

64. Capital means roundabout production[1]

The extensive use of capital distinguishes industrial peoples.

There is perhaps no more striking difference between primitive peoples and peoples industrially far advanced than in the use made of capital. The savage gets his living with the aid of a handful of simple tools and weapons; civilized man makes an extensive use of the most varied forms of capital. The consistent employment of capital in industrial life has wrought many profound effects, to one of these we may now turn our attention. This is the extension of the productive process over a long period of time. Capitalistic production means roundabout production, as Professor von Boehm-Bawerk explains in the following passage:

A peasant in need of water may go to the spring every time he is thirsty, or

A peasant requires drinking water. The spring is some distance from his house. There are various ways in which he may supply his daily wants. First, he may go to the spring each time he is thirsty, and drink out of his hollowed hand. This is the most direct way; satisfaction follows immediately on exertion. But it is an inconvenient way, for our peasant has to take his way to the well as often as he is thirsty. And it is an insufficient way, for he can never collect and store any great quantity such as he requires for various other purposes.

he may make a pail and carry his day's supply from the spring to the cottage, or

Second, he may take a log of wood, hollow it out into a kind of pail, and carry his day's supply from the spring to his cottage. The advantage is obvious, but it necessitates a roundabout way of considerable length. The man must spend, perhaps, a day in cutting out the pail; before doing so, he must have felled a tree in the forest; to do this, again, he must have made an axe, and so on.

he may pipe the water to his cottage.

But there is still a third way. Instead of felling one tree he fells a number of trees, splits and hollows them, lays them end for end, and so constructs a [sort of rude pipe] which brings a full head of water to his cottage. Here, obviously, between the expenditure of the labor and the obtaining of the water we have a very roundabout way, but,

[1] From Eugen von Boehm-Bawerk, *The Positive Theory of Capital.* The Macmillan Co., London, 1891; pp. 18–19.

then, the result is ever so much greater. Our peasant needs no longer take his weary way from house to well with the heavy pail on his shoulder, and yet he has a constant and full supply of the freshest water at his very door.

A man desiring stone may tear at it with his bare fingers, or

Another example: I require stone for building a house. There is a rich vein of excellent sandstone in a neighboring hill. How is it to be got? First, I may work the loose stones back and forward with my bare fingers, and break off what can be broken off. This is the most direct, but also the least productive way.

he may employ a hammer and chisel, or

Second, I may take a piece of iron, make a hammer and chisel out of it, and use them on the hard stone — a roundabout way, which of course leads to a very much better result than the former.

he may drill a hole and make use of explosives.

Third method — Having a hammer and chisel I use them to drill a hole in the rock; next I turn my attention to procuring charcoal, sulphur, and nitre, and mixing them in a powder, then I pour the powder into the hole, and the explosion that follows splits the stone into convenient pieces — still more of a roundabout way, but one which, as experience shows, is as much superior to the second way in result as the second was to the first.

A further illustration of the proposition that capitalistic production is roundabout production.

Yet another example: I am short-sighted, and wish to have a pair of spectacles. For this I require ground and polished glasses, and a steel framework. But all that Nature offers toward that end is silicious earth and iron ore. How am I to transform these into spectacles? Work as I may, it is as impossible for me to make spectacles directly out of silicious earth as it would be to make steel frames out of the iron ore. Here there is no immediate or direct method of production.

There is nothing for it but to take the roundabout way, and, indeed, a very roundabout way. I must take silicious earth and fuel, and build furnaces for smelting the glass from the silicious earth; the glass thus obtained has to be carefully purified, worked, and cooled by a series of processes; finally, the glass thus prepared — again by means of ingenious instruments carefully constructed beforehand — is ground and polished into the lens fit for short-sighted eyes. Similarly, I must smelt the ore in the blast furnace, change the raw iron into steel, and make the frame therefrom — processes which cannot be carried through without a long series of tools and

buildings that, on their part again, require great amounts of previous labor. Thus by an exceedingly roundabout way, the end is attained. . . .

65. Roundabout production means greater output[1]

Two consequences of the roundabout method of production.

The growing use of capital in modern production has steadily increased the length of the productive process. Two consequences have followed upon this development. In the first place, roundabout production accounts, largely, for the dependence of the laborer upon the capitalist. If capitalistic production led to consumable goods as quickly as production under primitive conditions, it might be possible for laborers to carry on roundabout production for themselves, without the aid of the enterpriser or the capitalist. But since this type of production takes a great deal of time, and since most laborers are unable to support themselves while waiting for the results of roundabout production to appear, roundabout production has necessarily been taken over by a special group of business men. The second consequence of roundabout production is that it has greatly increased output, as Professor von Boehm-Bawerk points out in the following selection:

Every lengthening of the roundabout process is accompanied by a further increase in the product.

In the making of a consumption good the possible roundabout methods are of very varying length. We may make intermediate products from which the final good will be obtained in a month, or a year, or ten years, or a hundred years. The question now is, What influence [do] such differences of degree have on product? On the whole it may be said that not only are the first steps more productive, but that every lengthening of the roundabout process is accompanied by a further increase in the technical result. . . .

An illustration of this proposition.

This proposition also is based on experience, and only on experience. . . . For instance, firewood can be got directly so long as we limit ourselves to the gathering of dry branches or breaking off of weak twigs. We take a short roundabout path in making and using a stone axe. A longer process involves digging ore out of the ground, getting the fuel and necessary tools and smelting iron out of the ore, working up the iron into steel, and finally turning out a finished

[1] From Eugen von Boehm-Bawerk, *The Positive Theory of Capital*. The Macmillan Co., London, 1891; pp. 84–85, 90–91.

steel axe. Beginning farther back, we may construct cunning machinery for mining and raising the ore, elaborate blast furnaces for smelting it, special machines for making and sharpening the axe. Going back farther still, we may put up engineering shops and machinery for constructing each kind of appliance, and so on. It will scarcely be doubted that every additional step increases the productiveness of the total process; that is, results in the obtaining of the unit, say the cubic foot of wood, at a smaller total expenditure of labor.

But every lengthening of the process does not necessarily mean a *proportional* increase in the product.

But just as little will it be doubted that the first two productive methods, the use of the stone axe and then of the steel axe, must have caused a much greater revolution in the productiveness of wood-cutting than the later improvements, although, absolutely, these may be by no means inconsiderable.

If necessary, this may easily be proved to demonstration by a little calculation. Assume, for example, that a laborer working with his hands can cut in one day two cubic feet of wood, and working with a stone axe, which has taken three days to make, can cut ten cubic feet: the three days' capitalist process is rewarded by a surplus return of eight cubic feet per labor day. Now possibly the doubling of the process, say that the more careful fashioning of the stone axe takes six days, may also double the surplus return, and give sixteen cubic feet.

But it is scarcely likely that trebling the roundabout process can treble the surplus return. And it is quite certain that extending the roundabout process a thousandfold — say by sinking of pits, from which the ore for the axe may be got after years have elapsed — will not be able to increase the surplus return a thousandfold. Otherwise we should have the all but inconceivable possibility that a worker in one day could cut 8000 feet of wood! From some one point — probably a point not far off — the surplus, though still increasing, will increase in a less ratio than the production period. . . .

Summary: the more capitalistic production is the greater the proportion of pro-

[Let us now summarize this whole phase of production:] Every year a community comes anew into possession . . . of a certain quantity of original productive powers, the powers represented by its labor and land. The farther away its production is from capitalist production . . . the greater will be the production of the year's pro-

ductive powers that is changed into *consumption goods* during the same year. The more capitalistic the production is, the smaller will be the proportion of the year's productive powers consumed within the year, and the greater the proportion invested in *intermediate products* that will come to maturity as finished goods only in future years.

ductive powers devoted to intermediate products,

And again, the higher the degree of capitalism is, the more remote will be the period at which these intermediate products mature. Thus a community producing from hand to mouth consumes in each year the fruits of the productive powers of that same year. A capitalist community consumes only to a small extent the fruits of the productive powers of the present year, and to a great extent the fruits of the productive powers of past years, while it again is making intermediate products for the service of future years. And the higher the degree of capitalism, the farther back in the past, on the average, are the years whose productive powers it consumes, and the farther on in the future are the periods for which it provides.

and the more remote the period at which these products mature.

And now, I trust, the following proposition, which puts together the chief features of the capitalist production process, will be understood beyond possibility of mistake: All consumption goods which man produces come into existence through a coöperation of human power with natural powers. . . . By means of these primary productive powers man may make the consumption goods he desires, either immediately, or through the medium of intermediate products called *capital*. The latter method demands a sacrifice of time, but it has an advantage in the quantity of product, and this advantage, although perhaps in decreasing ratio, is associated with every prolongation of the roundabout way of production.

Conclusion.

66. Producers must forecast demand[1]

In concluding our examination into the nature of supply, let us notice an important result of capitalistic production. This is the necessity of forecasting demand. Under the most primitive conditions production is generally in *direct* response to a demand: for example, a savage waits until he is hungry and then goes into the

Capitalistic production obliges producers to forecast demand.

[1] From Henry S. Dennison, "How I Use the Business Cycle." *The Nation's Business*, February, 1922, pp. 9–11.

woods to gather berries to eat. But capitalistic production is spread over time, and since it takes a great deal of time to turn raw materials into consumable goods, producers must begin operations long before there is any expression of the particular demand which their goods are to satisfy. But this production in anticipation of demand brings with it a great danger. Not only does industry move in "cycles" of alternate boom and depression, but it is subject to fluctuations from day to day. If producers misjudge future business conditions they may find that they have produced goods which cannot be sold at a profit. This danger obliges producers constantly to study the market for their goods. How the head of a great American manufacturing establishment attempts to forecast the demand for the products of his concern is explained in the following passage:

The necessity of planning ahead.

A few, a very few generations ago, manufacturing was by individual craftsmen who made to order and delivered almost direct to the consumer. Now there is a multiplicity of steps between maker and user. So the maker regulates supply not by the actual demand but by what he thinks the demand will be. . . . A great need, then, of modern industry and commerce is for intelligent direction which looks well beyond the feeling of the moment. The business man must get the habit of planning and budgeting, of fixing careful attention upon the future. As the use of such planning becomes habitual, unbridled guessing will be displaced by more careful estimates — by guessing by all available facts.

The manufacturer must forecast the demand for his products.

The manufacturer has no more important problem than that of forecasting the demand for his products. He cannot afford to be misled by outward appearances and such phrases as, "The shelves of the country are bare" or "The shelves of the country are glutted." He must have full and timely statistics well and clearly presented. . . .

Planning purchases of raw materials.

All this may sound like talking generalities. Let me tell what I and my associates have sought to do. . . . We have figured out roughly the maximum and minimum inventories of each important raw material which we are willing to carry at different periods of the [business] cycle. Then we have charted over a long period the prices of the commodities, and through this we have drawn a line showing the secular trend. Approximately parallel to, and a certain distance above and below, this middle line we have drawn our mini-

mum and maximum purchase lines. Then we vary our actual purchases according to the position of actual prices relative to these three lines.

Fixing the buying point.

The minimum purchase line represents the smallest amount we dare carry for current needs, and the maximum line represents the most that we consider it wise to tie up in inventories. Suppose, [in the case of] a certain material, that our standard quantity to order is six weeks' supply. If prices are below the line of secular trend we may buy up to twelve weeks' supply, but if prices are above we may buy not more than two weeks' supply. . . .

Adding to the fixed investment.

The same precautions that we use in buying we use in adding to our fixed investment. As the business cycle advances, then the heads of a corporation should more and more carefully scrutinize each project put before them by the engineering staff. They will find that . . . many projects can be postponed as to execution with profit to the company and community as well. In the boom before [the panic of] 1873, Andrew Carnegie, when asked . . . why he did not build more furnaces, said that it would be cheaper to wait and buy the furnaces that other men were building. He did not exactly foresee the panic that was to come, but he knew merely that the steel industry was expanding faster than the market could assimilate, and it was therefore evident to him that a number of projects were doomed to failure. . . .

The marketing of new lines of merchandise.

How do we market our goods when times are bad? . . . Largely by being prepared by holding back on new lines of merchandise when our factory has all it can do to fill orders for [lines] already established. We do our planning of new things *before* the depression comes, but we don't launch them *until* the buying appetite is jaded and needs the stimulus of novelties. . . .

Questions on the foregoing Readings

1. What is the great obstacle to the satisfaction of human wants?
2. Define scarcity.
3. What is meant by saying that "labor is the price of all good things"?
4. Describe the part played by human labor in the development of food plants.
5. What is the relation of human labor to such forms of natural wealth as bubbling springs of water or petroleum, the growing forest, etc.?

6. Define capital.
7. What is the relation of food supply to the origin of capital?
8. Describe the origin of capital in a primitive fishing community.
9. Why is the present industrial system sometimes called the "capitalistic" system?
10. Name some of the more important classes of capital, as enumerated by Professor Roscher.
11. What is meant by "incorporeal capital"?
12. Explain the meaning of the statement that "the greater portion of the national capital is in a state of constant transformation."
13. In what way does the use of capital distinguish primitive peoples from peoples who are industrially far advanced?
14. Illustrate the lengthening of the productive process in the case of a peasant in need of water.
15. Illustrate the lengthening of the productive process with respect to mining.
16. Describe the roundabout method of getting a pair of spectacles.
17. Name two important consequences of the roundabout method production.
18. Show that every lengthening of the roundabout process of production is accompanied by a further increase in the output.
19. Explain the statement that "every lengthening of the process does not necessarily mean a *proportional* increase in the output."
20. What influence has the lengthening of the productive process had upon the proportion of productive powers which are devoted to intermediate products?
21. What influence has the lengthening of the productive process had upon the period at which intermediate products mature?
22. What is the relation of capitalistic production to future demand?
23. Why is it necessary for manufacturers to plan for the future?
24. Describe the way in which a business firm might adjust its purchases of raw materials to future business conditions.
25. What can be said as to the proper time to market new lines of merchandise?

CHAPTER XII

THE FUNCTION OF MONEY AND CREDIT

67. The disadvantages of barter[1]

Barter apparently a simple and convenient method of exchange, but in reality subject to grave difficulties.

The earliest form of exchange seems to have consisted in giving one object directly for another. This simple form of exchange, called barter, is often found among savages, and among civilized peoples living under pioneer conditions. Among peoples who have attained to any appreciable degree of industrial development, exchange is effected by means of money. It might appear, at first glance, that the intervention of money would complicate the process of exchange, but in reality it has simplified it. Barter is apparently a simple and convenient method of exchanging goods, but in actual practice it is subject to such grave difficulties that the exchange of goods by means of money was a natural and necessary development. The chief difficulties of barter are described by a great logician and economist, Professor W. Stanley Jevons, as follows:

One difficulty with barter is that it implies a double coincidence of wants.

The first difficulty in barter is to find two persons whose disposable possessions mutually suit each other's wants. There may be many people wanting, and many possessing those things wanted; but to allow of an act of barter, there must be a double coincidence, which will rarely happen. A hunter having returned from a successful chase has plenty of game, and may want arms and ammunition to renew the chase. But those who have arms may happen to be well supplied with game, so that no direct exchange is possible. In civilized society the owner of a house may find it unsuitable, and may have his eye upon another house exactly fitted to his needs. But even if the owner of this second house wishes to part with it . . . , it is exceedingly unlikely that he will exactly reciprocate the feelings of the first owner, and wish to barter houses. Sellers and purchasers

[1] From W. Stanley Jevons, *Money and the Mechanism of Exchange*. D. Appleton & Co., New York, 1879; pp. 3–7.

can only be made to fit by the use of some commodity . . . which all are willing to receive for a time, so that what is obtained by sale in one case, may be used in purchase in another . . .

In barter there is no common measure of value.

A second difficulty arises in barter. At what rate is any exchange to be made? If a certain quantity of beef be given for a certain quantity of corn, and in like manner corn be exchanged for cheese, and cheese for eggs, and eggs for flax, and so on, still the question will arise, How much beef for how much flax, or how much of any one commodity for a given quantity of another? In a state of barter the price-current list would be a most complicated document, for each commodity would have to be quoted in terms of every other commodity, or else complicated rule-of-three sums would become necessary. Between one hundred articles there must exist no less than 4,950 possible ratios of exchange, and all these ratios must be carefully adjusted so as to be consistent with each other, else the acute trader will be able to profit by buying from some and selling to others. . . .

A third difficulty in barter is the want of a means of subdividing value.

A third . . . inconvenience of barter arises from the impossibility of dividing many kinds of goods. A store of corn, bag of gold dust, a carcass of meat, may be portioned out, and more or less may be given in exchange for what is wanted. But the tailor . . . may have a coat ready to exchange, but it much exceeds in value the bread which he wishes to get from the baker, or the meat from the butcher. He cannot cut the coat up without destroying the value of his handiwork. It is obvious that he needs some medium of exchange, into which he can temporarily convert the coat, so that he may give a part of its value for bread, and other parts for meat, fuel, and daily necessaries, retaining perhaps a portion for future use. Further illustration is needless, for it is obvious that we need a means of dividing and distributing value according to our varying requirement.

Extent of barter at the present time.

In the present day barter still goes on in some cases, even in the most advanced commercial countries, but only when its inconveniences are not experienced. Domestic servants receive part of their wages in board and lodging. The farm laborer may partially receive payment in cider, or barley, or the use of a piece of land. . . . The truck or barter system, by which workmen took their wages in kind, has hardly yet been extinguished. . . . [But] in almost all acts of

exchange money now intervenes in one way or another, and even when it does not pass from hand to hand, it serves as the measure by which the amounts given and received are estimated. . . .

68. The origin of money[1]

In modern life most exchanges are effected through the medium of money.

In the preceding selection Professor Jevons has indicated the chief disadvantages of barter and has pointed out that at the present time most exchanges of goods are accomplished through the medium of money. Money is usually defined as any thing which passes freely from hand to hand as a medium of exchange. Many people have very confused notions as to the nature and purpose of money, and for this reason it is necessary for us to note very carefully the manner in which money has arisen. The origin of money is described by Adam Smith in the following language:

The difficulties of barter

But when the division of labor first began to take place, [the] power of exchanging [goods] must frequently have been very much clogged and embarrassed in its operations. One man, we shall suppose, has more of a certain commodity than he himself has occasion for, while another has less. The former consequently would be glad to dispose of, and the latter to purchase, a part of this superfluity. But if this latter should chance to have nothing that the former stands in need of, no exchange can be made between them. The butcher has more meat in his shop than he himself can consume, and the brewer and the baker would each of them be willing to purchase a part of it. But they have nothing to offer in exchange, except the different productions of their respective trades, and the butcher is already provided with all the bread and beer which he has immediate occasion for. No exchange can, in this case, be made between them. He cannot be their merchant, nor they his customers; and they are all of them thus mutually less serviceable to one another.

lead to the development of money.

In order to avoid the inconveniency of such situations, every prudent man in every period of society, after the first establishment of the division of labor, must naturally have endeavored to manage his affairs, in such a manner, as to have at all times by him, besides

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776; Book I, Chapter IV.

the peculiar produce of his own industry, a certain quantity of some one commodity or other, such as he imagined few people would be likely to refuse in exchange for the produce of their industry.

Many different commodities have served as money, but ultimately all peoples have given the preference to metals.

Many different commodities, it is probable, were successively both thought of and employed for this purpose. In the rude ages of society, cattle are said to have been the common instrument of commerce; and, though they must have been a most inconvenient one, yet in old times we find things were frequently valued according to the number of cattle which had been given in exchange for them. The armor of Diomede, says Homer, cost only nine oxen, but that of Glaucus cost an hundred oxen. Salt is said to be the common instrument of commerce and exchange in Abyssinia; a species of shells in some parts of the coast of India; dried cod in Newfoundland . . . ; hides or dressed leather in some other countries; and there is at this day a village in Scotland where it is not uncommon, I am told, for a workman to carry nails instead of money to the baker's shop or the ale-house.

The reasons for this.

In all countries, however, men seem at last to have been determined by irresistible reasons to give the preference, for this employment, to metals above every other commodity. Metals cannot only be kept with as little loss as any other commodity, scarce anything being less perishable than they are, but they can likewise, without any loss, be divided into any number of parts, [and] by fusion those parts can easily be reunited again, a quality which no other equally durable commodities possess, and which more than any other quality renders them fit to be the instruments of commerce and circulation.

How metallic money facilitates exchange.

The man who wanted to buy salt, for example, and had nothing but cattle to give in exchange for it, must have been obliged to buy salt to the value of a whole ox, or a whole sheep, at a time. He could seldom buy less than this, because what he was to give for it could seldom be divided without loss; and if he had a mind to buy more, he must, for the same reasons, have been obliged to buy double or triple the quantity, the value, to wit, of two or three oxen, or of two or three sheep. If, on the contrary, instead of sheep or oxen, he had metals to give in exchange for it, he could easily proportion the quantity of the metal to the precise quantity of the commodity which he had immediate occasion for.

Iron, copper, gold, and silver

Different metals have been made use of by different nations for this purpose. Iron was the common instrument of commerce among the ancient Spartans, copper among the ancient Romans, and gold and silver among all rich and commercial nations.

were at first used in unstamped bars,

Those metals seem originally to have been made use of for this purpose in rude bars, without any stamp or coinage. Thus we are told by Pliny . . . that till the time of Servius Tullius the Romans had no coined money, but made use of unstamped bars of copper to purchase whatever they had occasion for. These rude bars, therefore, performed at this time the function of money.

but to avoid certain inconveniences

The use of metals in this rude state was attended with two very considerable inconveniences, first with the trouble of weighing, and second with that of assaying them. . . . We should find it excessively troublesome, if every time a poor man had occasion either to buy or sell a farthing's worth of goods, he was obliged to weigh the farthing. The operation of assaying is still more difficult. . . . Before the institution of coined money, however, unless they went through this tedious and difficult operation, people must always have been liable to the grossest frauds and impositions, and instead of a pound weight of pure silver, or pure copper, might receive in exchange for their goods, an adulterated composition. . . .

coinage was finally resorted to.

To prevent such abuses, to facilitate exchange, and thereby to encourage all sorts of industry and commerce, it has been found necessary, in all countries that have made any considerable advances toward improvement, to affix a public stamp upon certain quantities of such particular metals. . . . Hence the origin of coined money, and of those public offices called mints. . . .

69. The origin of banking [1]

The bank is an institution which deals in money and credit.

A bank may be defined as an institution which makes it its special business to deal in money and credit. Many people who are unfamiliar with the principles of industrial development look upon the bank as a mysterious institution which is conducted in accordance with hidden principles and, sometimes, with improper motives. But there is nothing mysterious about a bank. It is simply another

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life.* Washington, 1918. Series A, pp. 187–189.

result of the specialization in industrial development. Just as the grocer specializes in retailing food stuffs, and the shoe manufacturer in turning out shoes, so the growing importance of money and credit has made it necessary for some persons to make it their special business to do nothing but deal in money and credit. The origin of commercial banking is explained by Professor Moulton in the following selection:

In seventeenth-century England

Modern commercial banking began in England about the middle of the seventeenth century. If we begin our study by going back to that period, we shall be able to understand the present system of commercial banking much more easily.

the goldsmith was a worker in gold

At that time the goldsmith was a man who had in his possession quantities of gold. He used the precious metal for making all kinds of works of art. Plate for the table was wrought out by hand in most elaborate patterns. Jewelry was made for those who had wealth and could protect it. The homes of princes and rich merchants were decorated with the products of the goldsmith shops. In time, however, the goldsmith changed his profession from that of a worker in gold to that of a dealer in gold and other money. The business of banking originated with him.

who was in the process of becoming a banker.

In order to understand the way in which the goldsmith became a banker let us imagine ourselves living in the times in which he lived. We must remember that there were no banks and few places of safety where gold could be stored. Suppose I am a goldsmith and have a strong box in which to keep my supply of gold. Mr. Smith, a merchant who lives next door, knows this fact and says to me one day: "I wish you would let me put my surplus cash in your safe until such time as I want to use it again. My strong box is not a very good one, and I can scarcely sleep at night for fear that my money will be stolen." "Very well," I reply, "you may put your money in my safe, and I will give you a receipt for the amount and agree to return your money to you whenever you desire it. Of course, I shall have to charge you a small fee for my trouble and risk." Mr. Smith agrees to the plan and places $1,000 in my safe.

A few weeks later Smith wishes to pay Jones, another merchant near by, exactly $1,000. To make the payment Smith would have to withdraw the $1,000 from my safe and carry it down the street to Jones' place of business. Smith remarks to Jones that he is afraid

he may be robbed on the way, and even if he isn't, some thief is likely to learn that a considerable sum of money has exchanged hands and the receiver will need to guard it carefully. This gives Jones an idea and he replies, "I wonder if the goldsmith would not be willing to keep this money for me as well as for you. Let us go and find out." They come to me, and after listening to Jones's request I ask Smith for his receipt. Smith hands it to me and I tear it up. Then I write a receipt for the same amount and give it to Jones. By this simple method Smith has paid his debt to Jones, and the money has remained all the while in my safe.

The goldsmith-banker becomes an agent for settling claims between members of the community.

I soon improve on the method of transferring claims to money in my safe. The next time I give Smith a receipt for $1,000, which he deposits, I say to him: "Any time you wish to transfer this $1,000 to some one else all you need to do is to send that man to me with a written order for $1,000, whereupon I will deduct from your account $1,000 and pay him the cash or give him a receipt for the amount, whichever he prefers." A few days later Mr. Brown comes to me with an order from Smith requesting me to pay $500. I deduct $500 from Smith's account, leaving him a net credit of $500. Brown says he would like to leave his $500 with me, so I give him a receipt for that amount with a right to transfer it by means of a written order to anyone else. A month later Mr. Dixon comes to me with an order drawn by Brown asking me to pay him $300. I deduct $300 from Brown's account and open an account with Dixon for $300.

How checks came into use.

The habit is rapidly growing of passing orders from hand to hand instead of withdrawing the actual cash each time. In the course of a few years so many people have left their funds with me, and there is so much bookkeeping involved in keeping all the accounts straight, that I decide to give up my business as a goldsmith and devote all my time to taking care of this new business that has developed. I become a banker, pure and simple. . . .

At length the goldsmith becomes a banker, pure and simple.

70. The origin of bank credit[1]

From the above selection it is clear that the goldsmith gradually developed into a banker because of the demand in the community,

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series A, pp. 189–192.

Later the banker becomes an agent of extending credit to members of the community.

first, for some means of safe-guarding funds and, second, for some means of facilitating the discharge of debts between individuals. A further and very important function of banking also developed in this early period. This function has to do with the creation and extension of credit by the bank. In continuing the story of the goldsmith who has become a banker, Professor Moulton explains the origin of bank credit in the following language:

The habit which depositors have of leaving a proportion of their funds in the bank

By this time I have $100,000 in my safe. Every day many people present orders or checks drawn by the different depositors against their respective accounts. To my surprise I learn that about three times out of four the man who presents the order does not withdraw cash, but instead asks for a credit account with me against which he can draw checks when he wishes to make payments. Everybody remarks how much more convenient and how much less risky it is when one does not have to transfer the actual money.

leads the banker to conceive the idea of bank credit.

I ponder over the fact that only once in four times does anyone ask for cash. I have $100,000 with which to pay $100,000 in claims against me, but I am never called upon to pay more than $25,000 at one time. Why not, therefore, loan $75,000 at interest and increase my profits? I try this and find that my ability to pay $100,000 is not impaired so long as I make short-time loans of a kind that are sure to be paid promptly when they fall due. So long as only one dollar in four is called for in cash a twenty-five per cent reserve of specie is all that is necessary.

A new idea

Finally, I get a new idea. Instead of loaning $75,000 of my cash, why not plan to keep the whole $100,000 as a reserve and carry on an interest-collecting business of my own? Twenty-five thousand dollars is to the $100,000 as $100,000 is to $400,000. If with a reserve of $25,000 I can carry $100,000 in claims for cash against me, why could I not with a reserve of $100,000 create claims against me equal to $400,000.

and its application.

I try out this idea. I loan $300,000 to business men. I give them credit accounts against me, and for the sake of convenience they write checks against these accounts rather than withdraw the actual money when they wish to make payments. I find that the people who receive the checks are no more desirous of taking away cash than were the people with whom I dealt before. Now, as formerly,

one-fourth of the checks are presented for cash and three-fourths are deposited with me as credit accounts. Thus I carry a total of $400,000 and need only $100,000 actual cash with which to pay. Since most people prefer the credit account I am able to meet all claims with my cash reserve of twenty-five per cent of my outstanding accounts.

The function of the commercial bank.

Commercial banks to-day make loans to business men amounting to billions of dollars annually. These loans are mainly for short periods, and business men use them largely for working capital rather than for plants and equipment. The modern business manager not only does not own all of his plant and equipment, but he does not even own all of the capital required to operate a factory or run a store; he borrows funds on short time with which to buy raw materials for manufacture and stocks of merchandise for sale. It is the function of the commercial bank to furnish this working capital. . . .

A further service of the commercial bank.

There is one further function or service of the commercial bank which must be mentioned here. We have been speaking of checks or orders drawn against money deposited in a commercial bank. These checks are used to pay debts; they pass from hand to hand in exchanging goods, thus serving in lieu of the actual money which is in the bank. Besides these checks, promises to pay money are also issued in the form of *bank notes*. These pass as money everywhere in the channels of trade, and most people never think of them as being in any way different from Government money. Checks, however, pass from hand to hand only by indorsement. So convenient is this check currency that in the modern business world it is largely displacing money as a means of paying debts. . . .

71. Importance of credit in modern business [1]

Overshadowing importance of credit in effecting exchanges.

Although it is only within the last few centuries that money has been effectively supplemented by bank credit, the use of credit has grown steadily and rapidly. In such a country as the United States, for example, by far the majority of exchanges are effected, not through the medium of money, but by means of some form of credit. For the

[1] From David Kinley, *The Use of Credit Instruments in Payments in the United States*. National Monetary Commission, Washington, 1910; pp. 199–202, 206–208.

purpose of discovering the status of credit instruments in American business, the National Monetary Commission a few years ago conducted a nation-wide investigation of the usual methods of settling trade debts. In the following extract from the Commission's report, an American economist, Professor David Kinley, offers a summary of the results of this investigation:

A large proportion of the nation's business done by means of credit.

1. In the first place, it is very clear that a large proportion of the business of the country, even the retail trade, is done by means of credit instruments. While it is probably true that wage-earners, as a class, do not commonly use checks, it is also true that a great many of them do. Moreover, the use of checks is common among people who derive their income from other sources, even though it be not larger than the well-paid day laborer. We are justified, therefore, in concluding that 50 or 60 per cent of the retail trade of the country is settled in this way. . . .

The use of checks promoted by the payment of wages by check.

4. The use of checks is promoted in a measure by the payment of wages by check. It appears from our investigation that of weekly pay rolls reported by the banks, aggregating $134,800,000 for the week ending March 13 last, 70 per cent was in checks. . . .

Proportion of business done by check.

6. We may therefore safely accept an average of 80 to 85 per cent as the probable percentage of business of this country done by check.

7. The fact that so large a proportion of business is done with credit paper may or may not be a good thing. Whether it is or not depends on circumstances. . . .

A danger

8. The transaction of so large a volume of our business by checks is an element of danger in times of stringency and crisis. In such times the uncanceled balance of credit transactions creates a larger demand for money, but the habit of settling by check has meantime kept the available amount of money at a minimum.

which ought to be guarded against.

9. Consequently there ought to be some means of supplying additional currency when credit as a means of payment diminishes. This currency ought to be as safe and as uniform as the ordinary currency, and it should be capable of being quickly emitted and recalled. That is, it should possess elasticity.

10. The large money circulation of the country is explained by the facts that our prices and wages range high, that our people probably carry a larger average amount of money on their persons than do

foreigners, that some portion of our currency has been destroyed or lost or hoarded, and that some of our money is abroad in the hands of money brokers and others. Finally, as our business grows, the amount of money needed as reserve to perform this vast volume of business transactions increases, too. . . .

Reasons for the large money circulation of the country.

13. The volume of credit transactions very likely tends to increase as population and business grow. It does not increase uniformly, however, but by periodic movements. That is to say, the rate of increase of credit transactions, as compared with the whole volume of business, grows, as it were, by jerks and at a decreasing rate. . . .

Increase in the volume of credit transactions.

Of course, it will not do to overemphasize the importance of credit exchanges, vast as they are. Credit and credit documents cannot replace money altogether. They reduce the amount necessary, but against them some reserve must always be kept, accessible for emergencies in the settlement of balances.

The importance of credit should not be overemphasized.

The volume of business that can be done by credit paper depends on several circumstances. Obviously, in the first place, it depends upon the banking facilities of the country. If the banks are widely distributed, if they are willing to deal in transactions small enough to be within the reach of large numbers of people, many more transactions will be settled through them than would otherwise be the case. This fact undoubtedly explains in large measure the development of what may be called the "banking habit" among the people of the United States. Undoubtedly our people pay by check much more commonly and much more largely than the people of any other country. We settle smaller transactions by check; our banks are willing to carry smaller accounts. . . .

The volume of business done by means of credit depends upon banking facilities,

In the next place, the density of population is, of course, an important factor. A larger volume of business is settled by bank paper in a commercial center than in an agricultural community, even though the proportion of total business thus settled may not be larger. However, it is necessary that there should be a certain number of people within reach of a common center in order to have a bank established there. Of course the smaller the bank the fewer the people thus required. Thus again our inclination in the past to favor the establishment of the small independent banks has facili-

upon the density of population, and

tated the spread of banking, and [has] promoted the volume of business settled in the country districts by credit payment. . . .

upon the general level of intelligence.

Finally, the general education and intelligence of the mass of the people is an important factor. Men do not use banks unless they have confidence in them, and [the banks] have come to be regarded as a settled part of the ordinary mechanism of the community. Our people are people of a wide general education and high order of intelligence. They understand the place and work of the bank in a community much better than the same number of people, for example, in a European country. . . .

72. Money and credit in action[1]

Money and credit constitute a mechanism which handles business.

To summarize the preceding discussion, money and credit constitute a medium which in modern life serves to facilitate the conduct of business. This medium may be regarded as a tool for handling business, or as a means without which the ends of modern business activity could never be achieved. At any given time, there are in a populous community numerous persons who seek control of money and credit, *i.e.*, control of "capital," for the purpose of carrying on business; and at the same time there are numerous other individuals in the same community who wish to "invest capital." These two groups are often brought together by means of the bank, but the newspaper may perform the same function. The following extract from the *New York Times* illustrates the way in which a newspaper may serve as a financial middleman:

Capital to Invest:

Some examples of capital seeking investment.

[Advertisement No. 1.] Have $10,000 and services to offer to corporation or concern desirous of securing sales executive and manager; thoroughly acquainted with jobbers and department stores throughout the U. S. . . .

[Advertisement No. 2.] Do you need additional capital? Has your product now a ready market? Is it capable of development?. . .

[Advertisement No. 3.] Radio business, or manufacturer of parts or complete radio sets; I will invest $10,000 or more; am experienced business man; proposition must stand strict investigation. . . .

[1] From the New York *Times*, Sunday, April 30, 1922. Advertising section, p. 12.

[Advertisement No. 4.] Capital for mortgage issue available to responsible, manufacturing corporations; state financial, business and management record, amount required and security offered. . . .

[Advertisement No. 5.] Young man (30), good selling record and capable executive, knows how to market products and conduct business; willing to invest about $3,000 and services. . . .

[Advertisement No. 6.] Young executive will invest $5,000, seeks partner who will put up similar amount in some sound paying business. . . .

[Advertisement No. 7] Responsible party, willing to invest $5,000 with services in established manufacturing or jobbing business. . . .

[Advertisement No. 8.] Successful business man will invest $25,000 to $50,000 with services in established paying business. What have you to offer? . . .

[Advertisement No. 9.] Established business purchased, or part interest ($5,000–$10,000) in practical concern where additional capital and sales experience can be utilized. . . .

[Advertisement No. 10.] Have few thousand to invest in meritorious enterprise. . . .

Capital Wanted:

Some examples of the demand for capital.

[Advertisement No. 1.] An unusual opportunity for an unusual man or woman to invest capital, fully secured, in an international organization directed by prominent men. . . .

[Advertisement No. 2.] An established company manufacturing and selling product in national demand; also uniquely controls constant future business on which there is an extraordinarily high percentage of profit. . . . About $15,000 cash needed. . . .

[Advertisement No. 3.] A going company, owning the North American rights for the sale and manufacture of a trade-marked product without competition, now on sale throughout the United States, is about to launch a national advertising campaign to increase sales; upon acquisition of a limited amount of additional capital very substantial returns on investments possible. . . .

[Advertisement No. 4.] Associate wanted with $5,000 capital by hosiery manufacturers. . . .

[Advertisement No. 5.] A young important business started four years ago with $4,000 is now established and worth $150,000; profit-

able and much large expansion attainable with help of more capital used conservatively; would like to connect with financier that can invest $50,000. . . .

[Advertisement No. 6.] An iron and steel concern with an established clientele and an increasing volume of business is in need of $20,000 additional capital. . . .

[Advertisement No. 7.] A half interest in most successful mail order business of its kind in this country can be secured; buyer should be thoroughly experienced in mail order lines; . . . and should have capital and credit to the extent of $75,000. . . .

[Advertisement No. 8.] Wanted — man of ability to join two others who have invested their own money and time in perfecting device . . . needed in every residence for heating purposes. . . .

[Advertisement No. 9.] For sale — half interest in fancy stationery and gift business. . . .

[Advertisement No. 10.] For the purpose of entering the brokerage business I am desirous of associating with some one who has capital and an unblemished reputation. . . .

Questions on the foregoing Readings

1. Define barter.
2. What is meant by saying that "one difficulty with barter is that it implies a double coincidence of wants"?
3. Explain the statement that "in barter there is no common measure of value."
4. What is a third objection to barter?
5. Define money.
6. Illustrate the disadvantages of barter by the example of the butcher, the brewer and the baker.
7. Explain the way in which these difficulties encourage the development of money.
8. Name some commodities which have served as money in different countries and at different times.
9. Why have metals finally been preferred for this purpose?
10. Illustrate the way in which metallic money facilitates exchange.
11. In what form were metals first used as money?
12. What abuses were connected with the use of money in this form?
13. What is the purpose of coinage?
14. What is a bank?
15. Explain carefully the way in which the goldsmith first came into possession of the surplus cash of some of his neighbors.

16. How did the goldsmith become an agent for settling claims between members of the community?
17. How did checks come into use?
18. Explain carefully the way in which the banker conceived and applied the idea of making loans.
19. What is the function of the commercial bank?
20. What proportion of the nation's business is done by check?
21. Explain the statement that the volume of business that can be done on credit depends upon banking facilities.
22. What is the relation of the density of population to the volume of credit?
23. What is the relation between the volume of bank credit and the intelligence of the people?
24. Give a few illustrations of capital seeking investment through the agency of the *New York Times* advertising columns.
25. Give a few illustrations of persons seeking capital through the agency of the *New York Times* advertising columns.

CHAPTER XIII

EXCHANGING THE PRODUCTS OF INDUSTRY

73. The basis of exchange [1]

All permanent trade rests upon differences in productive powers.

The purpose of this chapter is, first, to summarize the reasons why individuals engage in trade, and, second, to discuss exchange from some angles which until now we have either ignored or neglected. Let us begin by noting that exchange is a necessary accompaniment of the complex division of labor. Individuals exchange goods of which they have a surplus, for goods which they lack but which they desire. The fact that individuals specialize in the production of a particular commodity or commodities means that they are more productively employed than if each were a jack-of-all-trades. All permanent trade, indeed, may be said to rest upon differences in productive powers, as Professor Alvin S. Johnson points out in the following selection:

An illustration from local trade.

All permanent trade is based upon differences in character of productive powers. To employ a single example drawn from the field of local trade, if A can make three pairs of shoes in a day while B can make only two, and B can cut two cords of wood in a day while A can cut only one, the basis for permanent trade between them exists. It will pay A to get all his wood from B, exchanging shoes for it. The assumed difference in character of productive powers may have originated in natural aptitudes or in differences in training. In either case the difference in productive powers is the essential basis of a continuous interchange of commodities.

The illustration extended.

But suppose that A cannot only make more shoes in a day than B can make, but can also cut more wood. Does this supposition preclude the possibility of a permanent interchange of products between A and B? Not at all. Suppose that A can make three pairs

[1] From Alvin S. Johnson, *Introduction to Economics*. D. C. Heath & Co., 1909; pp. 324–327.

of shoes in a day or cut two cords of wood, while B can make only one pair of shoes, or cut only one cord of wood. With two days' work B can produce as much wood as A can with one; with two days' work he cannot produce as many shoes as A can with one. Accordingly, it would pay him to offer A the product of a little more than two days of his own work at wood-cutting, in exchange for the product of one day of A's work at making shoes. And it would pay A to accept the offer. B suffers under a disadvantage in either occupation, but his disadvantage is less in wood-cutting than in shoe-making. A enjoys an advantage in either occupation, but his advantage is greater in shoe-making than in wood-cutting. Common sense, then, urges B to confine himself to cutting wood, A to making shoes.

Additional reasons in the case of trade between regions.

In the trade between inhabitants of one part of the earth's surface with those of another part, differences in personal aptitude and training of the kind assumed in the foregoing example are supplemented by differences of a more general nature. One region may have excellent mineral deposits but lack fertile land for the growing of food; another region may be quite devoid of minerals, but abundantly supplied with rich lands. In one region the character of the population may be such as to fit it for kinds of work requiring skill and taste, but not such as to fit it for kinds of work requiring great muscular strength and endurance. In another region the population may be almost incapable of acquiring taste and skill, although it is well fitted for labor demanding rude muscular power.

Capital may be plentiful and cheap in one region and scarce and dear in another. In this case industries requiring vast capital can be operated to greater advantage in the former region than in the latter. Land may be plentiful in one region, relatively to the population, and scarce in another. Industries requiring an extensive use of land will find their natural habitat in the former region. The populations of two regions, though differing little in fundamental character, may differ widely in their attitude toward particular forms of toil. They possess different habits, or, more properly, traditions of workmanship, which fit the one better for one kind of labor, the other for another. So long as any of these differences persist, there is obviously reason why there should be differences in the industries of the

two regions. With adequate means of communication, trade between the two regions naturally arises. . . .

Trade is either local or inter-regional, rather than domestic or international.

We have spoken of differences between regions, not differences between nations. From a purely economic point of view, trade is either local or inter-regional, not domestic or international. The trade between Belgium and the adjacent *départements* of France is economically of the same character as the trade between Rhode Island and Massachusetts. The trade between California and Hawaii is of the same essential character as the trade between New York and Santo Domingo. From an economic point of view local trade is that which originates in such differences in natural aptitudes and industrial training as may for a long time persist on the same soil. Differences in natural endowment, in general character of population, in rates of wages and interest, characterize inter-regional trade. As a rule, however, international trade is also inter-regional, hence the principles that apply to the latter may without serious qualification be applied to the former. . . .

74. The organization of exchange [1]

The organization of international trade.

The phenomenon of exchange presents no more striking characteristic than its rapid extension in modern times. Whereas formerly trade was in most cases limited to the exchange of relatively few products within a narrowly restricted area, exchange to-day involves innumerable products in every part of the world. The effective conduct of modern trade necessitates the elaborate organization of means of transportation and communication, financial institutions, and other marketing agencies. The following is a brief discussion of the organization of international trade:

Growing complexity of the international trade organization.

During the period of the merchant carrier, trade methods were essentially simple, exports being generally made directly by producers or by merchants, who handled exports on their own account and shipped them in their own vessels, and the import trade for the most part being handled by the same merchant carriers. When the reasons for this simple direct organization ceased, it was gradually

[1] From Emory R. Johnson, T. W. Van Metre, and others, *History of Domestic and Foreign Commerce of the United States*. Washington, D. C., 1915. Vol. II, pp. 128–130.

superseded by one involving the employment of public carriers and a number of commission men, factors, and other middlemen. . . .

The export commission house.

Export commission houses continue to this day to handle a substantial share of the foreign trade. Working on a commission basis they receive orders from abroad, fill the orders as desired, and in some cases take complete charge of the details of shipping and financial settlement. Some export commission houses have, moreover, extended this service so as to conduct selling organizations, either sending salesmen abroad or establishing foreign branch houses. . . .

Foreign trade in agricultural products.

The general tendency in the foreign trade in agricultural products has in recent years been toward the establishment of an organized export market, a movement which has been stimulated by the establishment of organized exchanges and the widespread use of the ocean cable. . . . Exchanges have been established abroad, and the cable has made possible the daily quoting of prices and the transmission of orders. . . . The commission men still play their part in the export grain-trade. They handle much of the grain which is shipped to the great primary grain centers of the Middle West from the country elevators, and some of this grain they ship abroad. A relatively larger share of the foreign grain trade has, however, since the later eighties, been handled by the great central elevator men and by grain dealers and export concerns who may purchase their supply either privately in the Central West or at the ports of exportation.

Middlemen in the cotton trade.

The break-up of the large cotton plantations after the Civil War resulted in the organization of a system of many middlemen to handle the cotton trade, but later some of the middlemen were eliminated. Though local dealers still occupy an important place in the cotton trade in parts of the eastern cotton belt, most of the export trade has fallen into the hands of cotton exporting concerns, whose agents at many points purchase the cotton direct from the grower. One of the purposes of the cotton growers' unions which have been organized is further to remove middlemen from the cotton trade. . . .

Commission houses still handle much of the foreign non-agricultural trade, but since the later nineties, when the export trade in manufactures became an important branch of the foreign trade, other (usually more direct) methods of exporting have been developed in many quarters. Numerous export houses have been organized for

the express purpose of purchasing American wares and exporting them on their own account. Some of them handle but one kind of article, for instance, some exporting concerns deal only in cotton textiles. Others purchase a large variety of goods and ship them to foreign markets in many parts of the world, and some of them are importers as well as exporters.

Manufacturers' export agents.

Many so-called "manufacturers' export agents" have, moreover, entered the export trade, their function being to act as agents and salesmen for manufacturers. Ordinarily they work on a salary basis, although sometimes a commission is charged, and any one of them may act for many different manufacturers of non-competing lines of wares. They solicit orders from export companies, export commission houses, and agents of foreign importers, and in some cases they endeavor to find customers abroad. Some of them take full charge of their customer's foreign business — selling, shipping, and collection.

Direct foreign sales.

Direct foreign sales are frequently made to those foreign importers who have established branch houses or agents in the United States, the agents sometimes buying directly from the American producer. Likewise an increasing number of shipments are made directly to foreign countries by American manufacturers. . . . The tendency on the part of the largest exporting manufacturers is to establish their own foreign selling organization, either by sending out salesmen or opening branch houses abroad. . . .

75. How retail purchases are paid for[1]

Exchange gives rise to debts, which must be discharged.

Having noted something of the basis and organization of exchange in modern life, let us turn to a discussion of the methods by means of which trade debts are extinguished or discharged. Wherever there is buying and selling debts are created, and in order that the process of exchange be completed, these debts must be discharged. Trade debts may be discharged in a number of ways, depending upon the understanding of buyer and seller, upon the nature of the transaction, and upon numerous other conditions. For the time being let us confine ourselves to a consideration of debts contracted by retail purchasing. In the following selection Professor Kinley discusses

[1] From David Kinley, *The Use of Credit Instruments in Payments in the United States*. National Monetary Commission, Washington, 1910; pp. 109–113.

the relative importance of cash and checks as methods of discharging such debts:

Test cases:

[A few test cases will illustrate the methods of settling debts incurred by retail purchasing:]

The average receipts of a furniture store show about 10 per cent in money.

Case 1: A retail furniture store on one day took in $634, of which $10 was in money; the rest was in checks. On another day it took in $265, of which only $10 was in money. The average receipts of this store from month to month show not much more than 10 per cent in money. It is situated in a city of a little less than 25,000. Like all stores in such places in this part of the country, [Illinois,] it has a large farmers' trade. . . .

Proportion of checks received by a Chicago store.

Case 3: One of the largest retail stores in the city of Chicago reports for the month of June, 52.9 per cent of its receipts in checks. This is one of the stores which are thronged every Saturday by purchasers of all classes.

The case of a confectioner.

Case 4: A confectioner; the writer supposed that here would be a kind of business in which checks would probably not appear at all. The proprietor told him that from 5 to 10 per cent of his cash sales daily were paid for in checks and that about 50 per cent of his "charged" sales were paid for with checks. The "charged" sales were three-fourths of the total sales for the month, so that the proportion of checks in his total month's receipts would run about 40 per cent.

Importance of checks in the retail bakery business.

Case 5: A retail baker; here again the writer was of the opinion . . . that there would be few checks in the month's receipts. As he stood and watched people buying "a 5-cent loaf," "10 cents' worth of cookies," "half a dozen rolls," for half an hour at a time on several occasions, before he put the question to the proprietor, his belief was strengthened. To his surprise, the proprietor of the bakery told him that while none of his cash sales were paid for by check, 80 per cent of his "charged" sales were so paid for, and that they amounted to about 50 per cent of his business. . . .

Paying for purchases at a "notion store."

Case 8: "Notion store" in a small city. In this store, of a total of $3,750 received in a certain period of time, 1½ per cent was in checks. This is one of the stores sometimes called in different parts of the country "five and ten cent stores."

Case 9: A grocer . . . told the writer that on an average, month in and month out, probably more than 60 per cent of his receipts were

The use of checks by the customers of a grocer.

in checks. Of course there are days when no checks come in for cash sales. There are other days when they are received pretty heavily. On the Friday on which the writer happened to call on the proprietor there were no checks in the cash sales, but 70 per cent of the sales were charged, and of these 85 per cent, he said, are usually paid in checks. . . .

Use of the check in purchasing goods at a drug store.

Case 10: A druggist; the drug business, again, is one in which a person would expect the money payments to predominate. The writer called on three druggists. One gave the actual figures of his business for a certain period and was able to tell what percentage of this was received in the form of credit paper. . . . It appeared that 62 and a fraction per cent of his receipts for a year were in checks. . . .

The case of a retail clothier.

Case 15: A retail clothier reports that of the amount of his cash sales about 35 per cent is paid with checks and of his "charged" sales about 90 per cent. His "charged" sales are about three-fourths of his total sales. . . .

76. How the clearing house works [1]

Relation of the check system to the clearing house.

The most significant point brought out in the preceding discussion is that while in many cases most retail purchases are paid for in cash, the check is used to a surprisingly large extent. In transactions involving larger sums, the check is of even greater importance, especially when the functions of commercial banking are understood by the people. Because of this importance of the check, it is necessary to know something of the means by which the check system works. One of the chief instruments of the check system is the clearing house. A day's operations in a typical clearing house are described by James G. Cannon, as follows:

Nature and function of the clearing house.

[A clearing house may be defined as a device to simplify and facilitate the daily exchanges of items and settlements of balances among the banks]. The exchange of items between the banks accomplishes two results: First, it places at the proper banks for payment the items to be exchanged which the several banks hold; and, second, it determines the difference between the amount of the items held by each bank against all the others and the amount held by all the other

[1] From James G. Cannon, *Clearing Houses*. National Monetary Commission, Washington, 1910; pp. 36, 38, 47, 52–56.

banks against each individual bank. The difference constitutes the balance which is to be settled. . . . The clearing house acts merely as the agent of the banks in the payment of the balances. It pays to the creditor banks the money it receives from the debtor banks. . . .

Quarters occupied by the clearing house.

The location of the clearing house is always as near the center of the banking district as possible. . . . [Most of] the various organizations occupy rented quarters, usually in one of the banks belonging to the association, and these they have equipped with the necessary furniture, stationery, and desks for the various members. . . .

Messengers

The number of messengers required to transport the exchanges to and from the clearing house varies widely in different cities. When the business is light . . . one person acts as both messenger and settling clerk, while in some of the larger cities the exchanges of some of the banks are so heavy that four or five messengers are necessary to transport them. . . .

take the checks to the clearing house.

Checks are taken to the clearing house bound together with rubber bands or inclosed in large envelopes, the items that go to each of the [banks] being kept separate. . . .

The usual rule is that immediately upon his arrival at the clearing house the settling clerk delivers to the manager, or the assistant manager, a ticket containing the amount of the items brought from his bank. . . .

The two methods of delivering items.

Two methods of delivering items in the exchange room are in vogue. In the one case they are delivered by all the clerks simultaneously; in the other by each clerk as soon as he arrives at the clearing room; but the exchanges must all be made before a specified time.

The actual exchange of items.

When the clerks begin the exchanges at the same time they all start upon the signal from the manager with their items on their arms or in bags or cases strapped over the back, and proceed in the same direction, passing along the desks until they have deposited all their paper. In the large cities, where the clerks are numerous, order and method are necessary in delivery to prevent confusion and to save time. But in small cities, where the clerks usually deliver their items as soon as they arrive, more liberty is allowed in personal conduct. . . .

When the clearings have been made, the next step is for each settling clerk to determine the amount of the balance of his own bank,

Determining the amount of the balance of each bank.

which is found by taking the difference between the amount brought to the clearing house and the amount taken away. . . . A certain amount of time is allowed for proof. . . . In some cases the settling clerks do not remain until the proof is made, but leave for their respective banks as soon as they make out their tickets for the amounts brought, amounts received, and balances. If the manager of the clearing house, or his assistant in charge of the proofsheet, finds, after he has made all the entries and additions, that his work does not prove, he first determines whether the error was made by one of the settling clerks or by himself. If by one of the clerks, it is usually discovered in a short time at the bank, whereupon the latter reports the error to the manager at the clearing house, either by messenger or by telephone. . . .

Speed with which the business of a clearing house is transacted.

The speed with which the business of a clearing house is transacted seems almost incredible. The actual time required to make the exchanges varies from one and one-half minutes to ten minutes. When the exchanges are made simultaneously, the time varies, as a rule, in proportion to the number of members. In view of the shortness of time required to make its exchanges, the New York Clearing House affords perhaps the best example in existence of the success of modern business methods as compared with the old way of doing things. The clearances exceed on the average $300,000,000, and yet this enormous amount of paper is exchanged between the banks in ten minutes, and often in less time. . . .

77. Function of the foreign bill of exchange [1]

A system of set-offs has been developed to obviate the use of gold in international payments.

The clearing house permits the cancelling of obligations between banks, so that only the difference or balance need be paid. The clearing house is employed only for the settling of banking claims within a particular country, and has no direct connection with foreign trade debts. But in the settlement of debts arising from international trade there has likewise been developed a system of set-offs, which reduces the transmission of coin between the trading countries to a mere settlement of balances. How the use of gold in international

[1] From Alvin S. Johnson. *Introduction to Economics*. D. C. Heath & Co., 1909; pp. 338–340, 344–345.

payments is largely obviated by the employment of bills of exchanges, is explained by Professor Alvin S. Johnson in the following selection:

A New York exporter

Let us suppose that A, a New York exporter, has sold 10,000 bushels of wheat to X, a Liverpool importer, at the price of $1 a bushel. If he wishes the $10,000 delivered to him at New York, in gold, he must, of course, pay freight and insurance on it. This will cost about $3 for every $500, or $60 for the entire sum.

avoids the importation of gold by means of a

But suppose that after shipping the wheat, and before giving orders for the delivery of the gold, he meets B, a New York importer, who is about to order $10,000 worth of woolen goods from Y, a Liverpool exporter. If B were to ship the $10,000 in gold to Liverpool, it would cost him $60 for freight and insurance. Now, if A will give B an order instructing X to pay Y the $10,000, instead of remitting it to himself, B can pay A the $10,000 that he would otherwise have remitted to Y. Both debts will be extinguished by such an arrangement, and both A and B can save $60 by it. Such an order . . . is known as a bill of exchange. . . .

bill of exchange.

The minimum and maximum price of bills.

In our example it appeared that both A and B gained $60 by the arrangement. Now if B had been unwilling, for some reason, to give A $10,000 for the latter's bill of exchange, A might have taken less. It would have been more profitable for him to take $9,950 than to incur the expense of importing the gold. If B had offered $9,940, it would have been a matter of indifference to A whether he sold his bill to B or imported the gold. $9,940 is evidently the very *lowest* price at which the bill would be sold. On the other hand, if A had been unwilling to part with his bill for just $10,000, B might have offered more, for he could better have afforded to pay $10,050 for the bill than stand the expense of exporting gold. If A had demanded $10,060, it would have been a matter of indifference to B whether he bought the bill or shipped the gold. $10,060 is, then, the very *highest* price that a $10,000 bill can be made to fetch.

The meaning of "par."

When a bill of exchange sells for just its face value, it is said to be at par; when for more or less, it is above or below par. We have now to inquire under what conditions bills will be at par, or above or below par.

If the importer whom we designated as B thinks that the chances are good that he can find other exporters besides A who are anxious

Variations in the price of bills of exchange.

to dispose of bills of exchange, he is likely to offer *less* than par for A's bill. If one of the holders of bills will not sell at a low price, another probably will. If, on the other hand, A thinks that he can easily find other persons besides B who have payments to make abroad, and who are anxious to purchase bills for the purpose, he is likely to hold his bill at a price *above* par. In general terms, when the volume of bills offered for sale appears to exceed the volume of remittances to be made to a foreign center, bills fall *below* par. When the volume of bills appears to be inferior to the volume of remittances to be made, bills rise *above* par. . . .

Exports are encouraged when bills are above par,

When bills are above par, it is more than usually profitable to export goods. Let us suppose that in New York the price of wheat is ninety-four cents a bushel, while in England the price is $1. If it costs five cents a bushel to ship wheat from New York to England, the exporter will make $100 on a 10,000 bushel shipment, if exchange is at par. If exchange is at its maximum above par, the exporter will be able to sell his $10,000 bill for $10,060, thus adding $60 to his nominal profit of $100. If exchange is at its minimum below par, the exporter can get only $9,940 for his $10,000 bill, thus losing $60 of his nominal profit of $100. If a profit of $100 on 10,000 bushels is just sufficient to induce importers to ship wheat, no wheat will be shipped if exchange is below par.

while imports are encouraged when bills are below par.

When exchange is below par, it is more than usually profitable to import goods. Let us suppose that it barely pays to import a certain kind of woolen goods when exchange is at par; that under these conditions the importer makes only $100 on a $10,000 shipment. If exchange is at its lowest price, the importer can pay for his goods with a $10,000 bill costing only $9,940. Thus he adds $60 to his profits. If exchange is at its highest price, and the importer must pay $10,060 for a $10,000 bill, $60 is deducted from his profit, and the business ceases to be worth while.

The tendency for exports to balance imports.

It follows that there is a tendency for an excess of either exports or of imports to check itself. If our exports increase, other things equal, exchange falls, and this discourages further exports, but encourages imports. If our imports increase too rapidly, exchange rises, and this discourages further imports and encourages exports. The fluctuations of the rate of exchange, then, have a tendency to

create a balance of exports and imports — allowance made for other items of international indebtedness. Exports and imports, in the long run, must increase or decline together. . . .

78. The advantages of exchange [1]

The direct economical advantages of exchange.

In former times the advantages of trade were hotly debated, but it is now generally recognized that the exchange of surplus products confers benefits of almost incalculable value. The direct economical advantages from exchange are two: In the first place, exchange enables us to utilize, in the best way possible, a large quantity of wealth which without exchange would remain unused; in the second place, exchange enables us to utilize in the best way a host of productive capacities which without exchange would remain inactive. In addition to these direct advantages, exchange confers important indirect advantages. The indirect advantages of foreign trade are explained in the following passage by a great English economist, John Stuart Mill:

Indirect benefits of foreign trade:

[Such, then, are the direct economical advantages of foreign trade.] But there are, besides, indirect effects, which must be counted as benefits of a high order.

(1) Improvement of the process of production,

One is the tendency of every extension of the market to improve the process of production. A country which produces for a larger market than its own can introduce a more extended division of labor, can make greater use of machinery, and is more likely to make inventions and improvements of production. Whatever causes a greater quantity of anything to be produced in the same place tends to the general increase of the productive powers of the world.

(2) the expansion of wants,

There is another consideration, principally applicable to an early stage of industrial advancement. The opening of a foreign trade, by making them acquainted with new objects, or tempting them by the easier acquisition of things which they had not previously thought attainable, sometimes works a sort of industrial revolution in a country whose resources were previously undeveloped for want of energy and ambition in the people, inducing those who were satisfied with scanty comforts and little work to work harder for the gratification

[1] From John Stuart Mill, *Principles of Political Economy*. D. Appleton & Co., New York, 1885; pp. 388–390.

of their new tastes, and even to save and accumulate capital for the still more complete satisfaction of those tastes at a future time.

(3) intellectual and moral progress, and

But the economical advantages of commerce are surpassed in importance by those of its effects which are intellectual and moral. It is hardly possible to overrate the value, in the present low state of human improvement, of placing human beings in contact with persons dissimilar to themselves, and with modes of thought and action unlike those with which they are familiar. Commerce is now what war once was, the principal source of this contact. Such communication has always been, and is peculiarly in the present age, one of the primary sources of progress.

(4) the encouragement of good-will among the nations of the earth.

Finally, commerce first taught nations to see with good-will the wealth and prosperity of one another. Before, the patriot, unless sufficiently advanced in culture to feel the world his country, wished all countries weak, poor, and ill-governed but his own. He now sees in their wealth and progress a direct source of wealth and progress to his own country. It is commerce which is rapidly rendering war obsolete, by strengthening and multiplying the personal interests which are in natural opposition to it. And it may be said without exaggeration that the great extent and rapid increase of international trade, in being the principal guarantee of the peace of the world, is the great permanent security for the uninterrupted progress of the ideas. the institutions, and the character of the human race.

Questions on the foregoing Readings

1. What is the basis of all permanent trade?
2. Illustrate the basis of permanent trade with reference to local trade.
3. Enumerate some of the factors which explain trade between regions.
4. What is meant by inter-regional trade?
5. Describe, briefly, the work of the export commission house.
6. Describe, briefly, the work of the manufacturers' export agent.
7. Discuss the phrase "direct foreign sales."
8. What is a trade debt?
9. Illustrate the use of the check in retail stores.
10. What is the relation of "charged" sales to payment by check?
11. Comment upon the use of the check in paying for purchases at a drug store.
12. What is the relation of the check system to the clearing house?
13. Define a clearing house.

14. What is the function or purpose of the clearing house?
15. Describe the way in which cancelled checks get to the clearing house.
16. What are the two methods of delivering the items?
17. Describe the actual exchange of items in the clearing house.
18. Illustrate the speed with which the business of the clearing house is transacted.
19. Describe the way in which a New York exporter may make use of a bill of exchange.
20. What is meant by a bill of exchange being at "par"?
21. Show how exports are encouraged when bills are above par.
22. Show how imports are encouraged when bills are below par.
23. Why do exports and imports tend to balance?
24. What are the intellectual and moral benefits of foreign trade?
25. What is the relation of foreign trade to good-will among nations?

b. THE THEORY OF PRICE

CHAPTER XIV

WHAT DETERMINES THE PRICE OF A GOOD?

79. Beginnings of the market [1]

The necessity for an actual meeting between buyers and sellers early led to the establishment of market places.

We have discussed at some length the nature of demand and supply in modern industry. Demand is represented by "buyers"; supply is represented by "sellers." Fundamentally the interests of buyers and sellers are in harmony, for both groups seek to benefit from the principle of the division of labor and the phenomenon of exchange. In order that they may operate upon one another, buyers and sellers must be brought into contact with one another. Formerly persons demanding goods and persons having a surplus supply of those goods had no other effective way of coming into contact with one another than by an actual meeting. This physical meeting occurred at some particular spot, which became known as a *market*, or place where goods were bought and sold. The nature and limitations of this early type of market are described by Professor Hearn as follows:

The beginnings of the market in early times.

When they desired to sell their labor or their goods, men have naturally resorted to some public place, the street or some thoroughfare, where many persons would be likely to pass, some of whom might be disposed to purchase. In such circumstances some particular place from some real or supposed convenience becomes gradually more frequented than other places, and the advantage once obtained is from its very nature continually increased. In the same manner some particular time of the day and some particular day become known as favorable for business. These days are generally holidays, days on which men abstain from their ordinary work, and assemble, some for amusement, some for the observances of their

[1] From William Edward Hearn, *Plutology*. George Robertson & Co., Melbourne, 1863; pp. 357–361.

religion, some for the transaction of business, and most from all these motives combined. When, as in early Europe was formerly the case, some religious observance was the proximate cause of meeting, these assemblages were held at some peculiarly sacred place, and as a natural consequence at some regular interval of time.

The market freed from religious observances.

Thus grew up what in the case of ordinary meetings were called markets, and what when the assemblage was unusually large and was held at great intervals, were called fairs. As society advanced, the religious observances were separated from the commercial contrivance. The history of this change may clearly be traced in England. There as elsewhere the early fairs were held on Sundays and holidays, generally under the protection of some patron saint. The people were brought together to hear divine service, and subsequently business was transacted. But in the year 1285 a statute of Edward the First prohibited the holding of fairs or markets in churchyards. . . .

Fairs and markets are typical of primitive society,

Although fairs and markets are useful and in some cases even necessary for exchange, they are not without their peculiar disadvantages. They are held at intervals more or less distant. If they have the merit of bringing many people together, they have also the defect of taking away many people from their ordinary occupations. This defect became more conspicuous when the number of church holidays was diminished, and their observance grew less strict. They are indeed the natural growth of an early growth of an early state of society, when population is scanty and sparse. . . .

and in an advanced society are superseded by more effective methods of carrying on trade.

As population increases, men find it more convenient to employ an agent than personally to attend the fair; and such agency when there is a sufficient constituency becomes a lucrative occupation. As the means of communication are improved, this tendency becomes more pronounced. Thus in every town and village of Great Britain shops are now found which supply almost all the requirements of their districts, and by the aid of roads and railways and other modes of transit derive their own supplies from remote and opposite quarters. Fairs and markets in short give way before, or exist mainly for, a new class that is gradually developed. The great distributing class under its various forms of merchants, agents, factors, brokers, or other middlemen and retailers, furnish a separate series of occupations. The facilities for exchange which the growth of such a body offers are

obvious. Those who wish to buy can get the article they want, and the quantity they want, at any moment and without leaving their own immediate locality. Those who wish to sell have no difficulty in finding either a purchaser or a person who can find a purchaser. . . . As society advances, these distributive agencies, like all other occupations, become more and more fully developed. . . .

80. The modern market: An example [1]

The development of the market in modern times.

The last paragraph of the preceding selection describes a development in marketing which has proved of great significance in modern life. We have not given up the practice of frequenting certain designated places for the purpose of buying and selling, but we are more and more turning over the function of marketing to a special class of middlemen. These middlemen include such persons as commission dealers, advertising specialists, jobbers, and agents of transportation. In their daily operations they make use of such facilities as ships, railroads, telephone, and telegraph. In such a country as the United States an army of middlemen are studying production in many parts of the world, and contriving ways of bringing within reach of the American consumer produce from the most diverse regions. The following account of a week's transactions in the New York wholesale produce market will illustrate something of the nature and scope of the modern market:

The New York produce market.

Strawberry receipts.

[New York City, Sunday, May 7, 1922.] Strawberry receipts on Thursday reached about a half million quarts, the largest quantity received on any single day so far this season. The heavy receipts, coupled with an all-night rain Thursday, caused a drop in wholesale prices Friday morning of from 5 to 10 cents a quart. About forty-five carloads were received on Thursday from South Carolina, while 1,200 crates came by steamer from Virginia. The week's total receipts were 140 carloads as compared with 110 carloads the previous week. Most of the sales in the wholesale market on Friday were at 15 cents a quart.

Canteloupes from Mexico.

New York City received its first Florida canteloupes of the season last week. They sold at $10 a crate of forty-five melons. A carload of canteloupes from Mexico on last Tuesday brought the same price.

[1] From the New York *Times*, Sunday, May 7, 1922. Section 2, p. 16.

Another carload arrived from Mexico the following day. Prices dropped from $2 to $3 a crate. Every year New York City receives about 4,000 carloads of canteloupes, nearly one-half of the receipts normally being in July and August. The largest of the supply comes from California and Colorado.

Honey dew melons from South Africa.

Approximately 800 crates of honey dew melons were received last Wednesday from Cape Town, South Africa. The melons were packed six to eight in a box and brought for best stock $2 to $2.50 a box. The first box of new season cherries from California was sold at auction last Thursday. . . .

Fruit from Chile.

A large cargo of fruit from Chile was sold at auction. There were 2,545 boxes of peaches. . . . The grape consignment, [consisted] of 11,710 crates of red, pink, black and white varieties. . . .

Rhubarb from Pennsylvania and Long Island.

Pennsylvania rhubarb appeared on the local market last week for the first time this season. It was of a good quality, and sold mostly at 6 cents a bunch wholesale. Long Island rhubarb sold mostly at 5 and 6 cents a bunch for good stock. Large fancy Long Island rhubarb sold generally at 7 cents a bunch. . . .

Cold storage apples.

A carload of Hudson River Newtown Pippins which was withdrawn from a local cold storage warehouse and offered for sale Friday morning, sold readily at $3.25 to $3.50 per bushel basket. . . .

Hothouse cauliflower.

The wholesale price of hothouse cauliflower from Long Island is now much lower than a year ago. On Friday the wholesale price of large heads ranged from 31 to 35 cents a head, wholesale, as compared with 50 to 58 cents a head on the corresponding date last year. . . .

Receipts of eggs.

"Receipts of eggs," said Herschel H. Jones, Director of the New York office of the State Department of Farms and Markets, in his weekly review of the wholesale market yesterday, "fell off considerably from last week's very heavy supplies. Last week the wholesale demand for hennery white eggs was very good. Medium and undergrade eggs were in plentiful supply. Wholesale prices advanced 2 cents a dozen on nearly all grades last week. On Friday the best near-by hennery white eggs sold at 39 cents a dozen as against 32 cents a year ago. The best State hennery brown eggs brought 31½ cents to 32 cents a dozen on Friday. The best Western and Southern browns sold at 30½ to 31 cents a dozen.

Butter prices.

"The wholesale price of butter declined 2½ cents a pound. The best creamery butter sold as high as 38 cents a pound. . .

The supply of maple sugar.

"New crop of maple sugar is continuing to arrive on the New York City markets in fairly good supply. A great deal of this sugar comes in cakes, ranging from one-half to three pounds each. Wholesale prices ranged from 20 to 25 cents a pound, as compared with 9 to 13 cents a pound for old crop sugar. New crop maple sugar sold generally in the wholesale commission houses at $1.65 a gallon. . . ."

The meat market.

The meat market remained steady all the week on everything except beef and pork loins, according to John J. Doheny, local representative of the meat division of the Federal Bureau of Markets. All classes of beef dropped 50 cents a hundred pounds on Friday. Some kosher cuts also dropped toward the end of the week. . . .

81. The newspaper as a marketing agency [1]

Relation of transportation and communication to the market.

More and more the modern market is a matter of transportation and communication, and less and less a definite spot to which buyers resort to examine, and to bargain for, the goods brought there by sellers. Indeed, the economist often defines the typical modern market as a *connection between buyers and sellers*. This means that a market exists to the extent that buyers and sellers are in effective touch with one another, though it is of course assumed that there also exist facilities for transporting the goods bought and sold. It is to be noticed here that the advertising columns of the daily newspaper are more and more important in the play of the market. Though they live in different localities, and though in many cases they may never actually meet, buyers and sellers are brought together by the newspaper. The following extracts from the advertising columns of the New York *Times* illustrate one way in which persons desiring to purchase used automobiles may be brought into touch with persons having such automobiles to sell:

Automobile Exchange

Advertisements are subject to censorship. Large variety of standard types for commercial and pleasure purposes, completely refinished and re-equipped. Used enclosed cars of all models and late designs for immediate ownership and operation. Many bargains found through these columns. Telephone Bryant 1000.

[1] From the New York *Times*, Sunday, May 7, 1922. Section 1, p. 31.

Used automobiles offered for sale through the medium of the newspaper.

[Advertisement No. 1.] White, four-cylinder, big 45 limousine, 1917 model, good condition mechanically, fine appearance; Westinghouse shock absorbers front and back; Kelly-Springfield cord tires all around; fine condition; also two spares; reason for selling, owner going to Europe; price $850. . . .

[Advertisement No. 2.] Special. Attractive bargain; luxurious Twin-Six Packard; late model; special Fleetwood sedan body, with extra equipment and elegant fittings; lowest cash, $4,500. . . .

[Advertisement No. 3.] Mr. Automobile Buyer — We have the greatest list of used car bargains in New York; all makes, all prices; our owners need cash quick and will take any offer; we undersell everybody; let us explain; no charge; investigate. . . .

[Advertisement No. 5.] Unused Mack Trucks, half factory price. Also Packard, White, and Pierce. . . .

[Advertisement No. 6.] Paige car, late Linwood model, entirely repainted, completely overhauled, new battery, new tires; in many respects better than new car; going to Europe; will sell to quick buyer for $650. . . .

[Advertisement No. 7.] Two fine cars have just come out of our paint shop, both 1921 production, one with 4-passenger, other 7-passenger touring bodies; substantially like new and guaranteed, of course. . . .

[Advertisement No. 8.] Pierce for sale, $5,500; six-passenger, late series 5–51; mileage only 2,500 miles; one of Pierce's famous cars with cast aluminum body; guaranteed perfect condition throughout; owner a Pierce official; fully equipped. . . .

[Advertisement No. 9.] Sauer — For sale, two new German Sauer cars, one sport model completely finished with American-made body; one Sauer chassis with partly finished limousine body, worm drive differential, latest patent leverless transmission machine; gear shift instrument board; not electric. . . .

[Advertisement No. 10.] Simplex 75 H. P. 4-pass. sport, wire wheels, 2 extras, practically new tires, starting and lighting system; owner has spared no expense in keeping this car in exceptional condition; a very attractive car; price $650. . . .

[Advertisement No. 11.] Cadillac 1921; model 59 four-passenger touring; this car has had very little mileage and exceptional care by

original owner; any person contemplating purchase of new car should see this one before buying. . . .

[Advertisement No 12.] English sunbeam. Practically new, run few hundred miles; equipped with special custom made light weight sporting runabout body, complete with full equipment; mechanically guaranteed; cost $10,700; can be bought at an exceptionally low price. . . .

82. The first law of the market [1]

At any given time, and in the same market, goods of the same kind and quality tend to sell for the same price.

Let us now examine the manner in which demand and supply actually operate upon each other in the market. A principle of very great importance is what is sometimes called the "first law of the market." This "law" declares that commodities of the same kind and quality tend to have the same value at the same time and place. This means that, if at any given time, there are in the same market a large number of units of a commodity, all exactly alike and equally desirable, they will all tend to sell at the same price. The significance of this principle is discussed by Professor W. Stanley Jevons in the following passage:

Units of an identical supply will be considered equally desirable by the prospective purchaser,

When a commodity is perfectly uniform or homogeneous in quality, any portion may be indifferently used in place of an equal portion; hence, in the same market, and at the same moment, all portions must be exchanged at the same ratio, [*i.e.* for the same price]. There can be no reason why a person should treat exactly similar things differently, and the slightest excess in what is demanded for one over the other will cause him to take the latter instead of the former. In nicely-balanced exchanges it is a very minute scruple which turns the scale and governs the choice. A minute difference of quality in a commodity may thus give rise to preference, and cause the ratio of exchange to differ.

and he will pay no more for one unit than for any other.

But where no difference exists at all, or where no difference is known to exist, there can be no ground for preference whatever. If, in selling a quantity of perfectly equal and uniform barrels of flour, a merchant arbitrarily fixed different prices on them, a purchaser would of course select the cheaper ones; and where there was abso-

[1] From W. Stanley Jevons, *The Theory of Political Economy*. The Macmillan Co., London, 1888; pp. 90–94.

lutely no difference in the thing purchased, even an excess of a penny in the price of a thing worth a thousand pounds [sterling] would be a valid ground of choice.

The law stated.

Hence follows what is undoubtedly true, with proper explanations, that in the same open market, at any one moment, there cannot be two prices for the same kind of article. Such differences as may practically occur arise from extraneous circumstances, such as the defective credit of the purchasers, their imperfect knowledge of the market, and so on.

The price of a given commodity in a state of continual change.

Though the price of the same commodity must be uniform at any one given moment, it may vary from moment to moment, and must be conceived as in a state of continual change. Theoretically speaking, it would not usually be possible to buy two portions of the same commodity *successively* at the same ratio of exchange, because no sooner would the first portion have been bought than the conditions of utility would be altered.

An illustration.

When exchanges are made on a large scale, this result will be verified in practice. If a wealthy person invested $500,000 in the funds in the morning, it is hardly likely that the operation could be repeated in the afternoon at the same price. In any market, if a person goes on buying largely, he will ultimately raise the price against himself. Thus it is apparent that extensive purchases would best be made gradually, so as to secure the advantage of a lower price upon the earlier portions. . . .

Difficulty of working out a complete solution of the problem of price movements.

We must carefully distinguish, at the same time, between the statics and dynamics of this subject. The real condition of industry is one of perpetual motion and change. Commodities are being continually manufactured and exchanged and consumed. If we wished to have a complete solution of the problem in all its natural complexity, we should have to treat it as a problem of motion — a problem of dynamics. But it would surely be absurd to attempt the more difficult question when the more easy one is yet so [little understood by us.] It is only as a purely statical problem that I can venture to treat the action of exchange. Holders of commodities will be regarded, not as continuously passing on these commodities in streams of trade, but as possessing certain fixed amounts which they exchange until they come to equilibrium.

Conclusion.

It is much more easy to determine the point at which a pendulum will come to rest than to calculate the velocity at which it will move when displaced from that point of rest. Just so, it is a far more easy task to lay down the conditions under which trade is completed and interchange ceases, than to attempt to ascertain at what rate trade will go on when equilibrium is not attained. . . .

83. Fluctuations in market price [1]

The first law of the market is only a tendency.

It should be noted that what we have called the "first law of the market" is in reality a *tendency* rather than a *law*. Professor Jevons has explained the reason for the existence of this tendency in market operations, but he has also suggested that a satisfactory analysis of price movements is a very difficult matter. Business conditions are in a state of perpetual motion and change, and market prices are accordingly subject to constant fluctuation. Earlier in this chapter we saw something of the nature of these fluctuations in the case of the New York produce market; in this selection we may turn to the theoretical aspects of the case. The following discussion of the fluctuations in market price is by Professor Alvin S. Johnson:

The fluctuations of market price

Since prices depend upon the valuations of the marginal buyers and sellers, or, what amounts to the same thing, upon demand and supply — factors that are constantly changing — we should naturally expect prices to fluctuate. That they do fluctuate is easily proved, either by our daily experience in buying and selling, or by an examination of price statistics.

illustrated.

In the period from May, 1907, to December, 1908, the price of wheat in New York ranged from \$0.81¼ per bushel to \$1.14⅛. The price of corn ranged from 57 cents per bushel to 90 cents; the price of cotton from 8 13/16 cents per pound to 13½ cents; the price of wool from 20 cents to 28 cents; the price of copper from 12.37½ cents to 25.50 cents. . . .

In the cases cited [above] the most marked fluctuation was in copper — a little over 100 per cent. But for the fact that the period under consideration began with an artificially high price for copper, owing to speculative manipulation of the market, and ended with an

[1] From Alvin S. Johnson, *Introduction to Economics*. D. C. Heath & Co., 1909; pp. 43–45.

artificially low price, owing to the same cause, the price of copper would probably have ranged from 15 to 20 cents. Such a degree of fluctuation in a staple, non-perishable commodity is about as great as one can expect, even in a much longer period of time. If the price of such a commodity declines perceptibly, buyers lay in stocks, in expectation of a reaction toward higher prices, and by this very means tend to bring on the anticipated reaction.

The prices of relatively imperishable commodities fluctuate less widely than do

The prices of such commodities as strawberries, fresh vegetables, and fresh fish may easily advance or decline 100 per cent in a single week. With progress in methods of preserving such commodities, the range of price fluctuations is reduced. We do not buy perishable commodities at such low prices, nor at such high prices, as were known before refrigeration came into common use.

the prices of perishable commodities.

In the early part of the nineteenth century, England, through the policy of levying heavy duties on imported wheat, forced her population to rely almost exclusively upon the domestic supplies of grain. As a consequence of this policy a good season meant very low prices, [and] a bad season very high ones. In 1812 the price of wheat rose to $3.84 per bushel; in 1822 the price was $1.35. To-day such a range of wheat prices is unknown in England. Wheat is imported from all quarters of the globe, and it is impossible that all the world should have a bad season at one time. If the American crop is short, it is highly probable that the crop in Russia, India, or Argentina will be exceptionally heavy.

Improvements in railway transportation have made possible the carriage of perishable commodities over great distances. Fresh fish from the Columbia River on our northwest coast are now carried to Germany when the prices in the German market are high enough to justify the expense of transportation. This keeps the local price of fish from being as low as it otherwise would, when the catch is heavy, and keeps the German price from rising so high as it otherwise would when the Norwegian fisheries yield a short supply.

Modern improvements in transportation and marketing

We are safe in saying that modern improvements in transportation and market organization tend to eliminate sharp fluctuations, limited to a small area, and to substitute more modern fluctuations, extending over wide areas. . . .

tend to reduce price fluctuations.

We are, indeed, familiar with a large class of commodities, the price

Relative absence of price fluctuations in the case of monopolized articles.

of which never varies. Postage stamps are always sold at uniform prices. Many patented articles, especially goods for personal use, and most copyrighted books, are sold at unvarying prices. From May, 1907, to December, 1908, steel rails were quoted at $28 per ton — never more, never less. The explanation of such steadiness in price is always the same — monopoly, in one form or another. Where there is but one seller, and that seller resolutely refuses to change his prices, there can, of course, be no price fluctuations. [But we have omitted a consideration of monopoly prices from this discussion in order to concentrate attention upon] the laws governing prices in the competitive field. . . .

84. Market price hovers about normal price [1]

Competitive market price tends toward a theoretical level which may be called normal.

At times market prices reach a level that every one knows is too high or too low to be maintained for any long period. Such prices we naturally regard as abnormal and transient. When prices are abnormally high, production is greatly stimulated, and at length the increased supply operates to reduce prices; if, on the other hand, prices should fall to an abnormally low level, it is likely that some producers will drop out, and the effect of the decreased supply will be to increase prices. Between the level of abnormally high prices and the level of abnormally low prices, says the economist, there is a price that is normal or natural. Market prices will fluctuate about normal price, never remaining long much above or much below it. Competitive market price thus tends toward a theoretical level which may be called normal, since every deviation from this level is followed by a reaction. This tendency of market price to hover about normal price was first explained adequately by Adam Smith, from whose writings the following extract is taken:

Normal price

When the price of any commodity is neither more nor less than what is sufficient to pay the rent of the land, the wages of the labor, and the profits of the stock employed in raising, preparing, and bringing it to market, according to their [normal] rates, the commodity is then sold for what may be called its [normal] price.

The commodity is then sold precisely for what it is worth, or for

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. Book I, chapter vii.

must cover the cost of production, including the ordinary rate of profit,

what it really costs the person who brings it to market; for though in common language what is called the prime cost of any commodity does not comprehend the profit of the person who is to sell it again, yet if he sells it at a price which does not allow him the ordinary rate of profit in his neighborhood, he is evidently a loser by the trade; since by employing his stock in some other way he might have made that profit. . . . As, while he is preparing and bringing the goods to market, he advances to his workmen their wages, or their subsistence; so he advances to himself, in the same manner, his own subsistence, which is generally suitable to the profit which he may reasonably expect from the sale of his goods. Unless they yield him this profit, therefore, they do not repay him what they may very properly be said to have really cost him.

since no one will continue to sell without a profit.

Though the price, therefore, which leaves him this profit is not always the lowest at which a dealer may sometimes sell his goods, it is the lowest at which he is likely to sell them for any considerable time; at least where there is perfect liberty, or where he may change his trade as often as he pleases.

Market price

The actual price at which any commodity is commonly sold is called its market price. It may either be above, or below, or exactly the same with its [normal] price. . . .

may sometimes rise above,

When the quantity of any commodity which is brought to market falls short of the effectual demand, all those who are willing to pay the whole value of the rent, wages, and profit, which must be paid in order to bring it thither, cannot be supplied with the quantity which they want. Rather than want it altogether, some of them will be willing to give more. A competition will immediately begin among them, and the market price will rise more or less above the [normal] price. . . . Hence the exorbitant price of the necessaries of life during the blockade of a town or in a famine.

and sometimes fall below, normal price.

When the quantity brought to market exceeds the effectual demand, it cannot be all sold to those who are willing to pay the whole value of the rent, wages, and profit, which must be paid in order to bring it thither. Some part must be sold to those who are willing to pay less, and the low price which they give for it must reduce the price of the whole. The market price will sink more or less below the [normal] price. . . .

Circumstances under which market price will coincide with normal price.

When the quantity brought to market is just sufficient to supply the effectual demand and no more, the market price naturally comes to be either exactly, or as nearly as can be judged of, the same with the [normal] price. The whole quantity upon hand can be disposed of for this price, and cannot be disposed of for more. The competition of the different dealers obliges them all to accept . . . this price, but does not oblige them to accept . . . less.

The quantity of every commodity tends to adjust itself to the effectual demand.

The quantity of every commodity brought to market naturally suits itself to the effectual demand. . . . If at any time it exceeds the effectual demand, some of the component parts of its price must be paid below their [normal] rate . . . and the quantity brought to market will soon be no more than sufficient to supply the effectual demand. All the different parts of its price will rise to their [normal] rate, and the whole price to its [normal] price.

If, on the contrary, the quantity brought to market should at any time fall short of the effectual demand, some of the component parts of its price must rise above their normal rate . . . [and] the quantity brought thither will soon be sufficient to supply the effectual demand. All the different parts of its price will soon sink to their [normal] rate and the whole price to its [normal] price.

Conclusion.

The [normal] price, therefore, is, as it were, the central price to which the prices of all commodities are continually gravitating. Different accidents may sometimes keep them suspended a good deal above it, and sometimes force them down even somewhat below it. But whatever may be the obstacles which hinder them from settling in this center of repose and continuance, they are constantly tending toward it. . . .

Questions on the foregoing Readings

1. Why may we say that "fundamentally the interests of buyers and sellers are in harmony"?
2. Describe the origin of the primitive market place.
3. Discuss the relation between the early market and religious observances.
4. What is meant by the statement that "fairs and markets are typical of primitive society"?
5. Explain the statement that with the development of industry "fairs and markets in short give way before, or exist mainly for, a new class that is gradually developed."
6. Discuss the development of the market in modern times.

7. Discuss transactions in the New York produce market with reference to the variety of products.
8. Comment upon the fluctuations in the prices of these products.
9. Comment upon the sources of the products which find their way to this market.
10. What is the importance of communication in modern marketing?
11. What is the relation of the newspaper to marketing?
12. Comment upon the variety in the types of automobiles offered for sale through the columns of the New York *Times*.
13. Discuss the methods employed in these advertisements for appealing to prospective buyers.
14. What is the "first law of the market"?
15. Why will an individual not be willing to pay more for one unit of a supply than for any other?
16. In what form does Professor Jevons state the first law of the market?
17. Illustrate the statement that the price of a given commodity is in a state of continual change.
18. What is the difficulty of working out a complete solution of the problem of price movements?
19. Illustrate fluctuations in market price with reference to wheat, corn, cotton, wool, and copper.
20. Explain the statement that "the prices of relatively imperishable commodities fluctuate less widely than do the prices of perishable commodities."
21. What has been the effect of modern improvements in transportation and marketing upon price fluctuations?
22. What can be said as to price fluctuations in the case of monopolized articles?
23. Why does competitive market price tend toward a theoretical level which may be called normal?
24. Why must normal price cover the cost of production, including the ordinary rate of profit?
25. Explain clearly the statement that "the quantity of every commodity tends to adjust itself to the effectual demand."

CHAPTER XV

DISTRIBUTING THE INCOME OF INDUSTRY

85. The problem previous to the Industrial Revolution [1]

The distribution of wealth is the most important of our industrial problems.

Of all the practical problems to which the development of industry has given rise, perhaps the most difficult, and certainly the most important, is the distribution of wealth. Ever since men began to combine in production there must have been some question as to what share of the joint product each was to get. But though the problem is an ancient one, it is only since the Industrial Revolution that the distribution of wealth has become of overwhelming importance. Whereas to-day innumerable products are turned out under conditions which involve this great problem of distribution, most products were formerly turned out under simple conditions which created no such problem. For example, the colonial farm, in charge of a single family, formerly produced numerous articles now turned out by the factory system. The following is a brief description of the manufacturing activities carried on by the colonial farmer and his family:

The colonial farm was practically self-sufficing.

In colonial times there was very little trading. The roads were few and in poor condition. There were no railroads and no opportunities on many of the farms to make use of boats and water transportation. People had to be independent, that is to say, self-sufficing. The farm was not merely a place for raising live stock, poultry, grain, vegetables, and fruit; it was also a manufactory of almost everything needed in daily life. The farmer and his family produced the raw materials and also made them into useful articles.

Types of articles made.

Generally speaking, these articles included: (1) Wearing apparel and household textile supplies; (2) household implements, utensils, furniture, necessities, and comforts; (3) farming implements, build-

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series B, pp. 17–24.

ing materials, and general supplies. A few things were purchased from occasional traders who came to the farm. A few things were purchased in the towns on the infrequent visits of the farmer to the more densely settled districts. Thus the scythes were made at the forge, and only the handles were made on the farm. Saws and axes were imported from England, or later from those regions where iron was abundant and easy to secure. Not all metal articles were imported. The soft pewter metal which went into the forks and knives could often be worked into household utensils in the domestic factory — the home. . . .

The home manufacture of furniture

The first settlers brought some furniture from Europe with them, but as they migrated inland it proved to be too bulky to move, so that the inhabitants of each new settlement were compelled to make within their homes such articles as tables, stools, cupboards, and bedsteads. . . .

and agricultural implements.

The farmer not only made his house and furniture from lumber, shingles, and nails of his own manufacture, but he had to make the implements with which to work his farm. These consisted of vehicles of transportation, plows, harrows, pitchforks, handrakes, shovels, ax handles, hoe handles, scythe-snaths, singletrees . . . and harness for his horse, if he chanced to have one. All manner of makeshifts were often necessary to supply some of these articles. For example, horse collars were made of corn husks; hames of crooked roots; clips, clevises, and laprings of hickory withes; ox yokes of bent hickory wood; traces and bridles of twisted deer hide, and pitchforks from forked boughs or antler horns.

Other manufactures.

Besides making the implements with which to till his farm, the farmer and his boys had also to make the tools with which the products of the farm were brought into condition for use. They made their own cider mills, cheese presses, spinning wheels, flax brakes, swingling knives, wool combs, looms, and implements used in making hominy and bread.

The making of clothes by the farmer

The hides of animals killed for food on the farm, or of the deer, squirrels, raccoons, rabbits, beavers, and foxes shot or trapped in the woods were used for many purposes. Deerskins were made into hunting shirts, breeches, coats, leggings, and moccasins. Gloves and mittens were made from the skins of squirrels and beavers,

caps from the skins of raccoons, bears, foxes, cats, rabbits, and woodchucks. Bearskins were made into beds and bedding. From the deerskins and cowhides, moccasins, shoe-packs, and shoes were made. The preparation of the material and the making of all of these articles were done on the farm, the work being the duty chiefly of the men and boys.

and his family.

While the farmer and his boys were busy supplying leather clothing, the wife and daughters were manufacturing cloth to be used for wearing apparel and as household textile supplies. Cloth was made from cotton, wool, or flax. The making of these involved the preparation of the raw material for the spinning wheel and loom, and bleaching and dyeing the finished products. . . .

86. Industrial life increasingly complex[1]

The simple conditions of colonial days no longer exist.

Under the conditions described in the preceding selection, the problem of distribution was relatively unimportant. The farmer and the various members of his family coöperated in the production of many goods, yet the distribution of these joint products was an easy matter. In the first place, relatively few persons were involved. In the second place, the fact that these persons were bound together by family ties rendered easy a just and peaceable distribution of the products of their joint labor. But since the Industrial Revolution great changes have come about, with the result that these simple conditions have been replaced by an exceedingly complex situation. Something of the rapidity with which this complex situation has developed is indicated in the following discussion by Rufus Cope:

Profound changes effected in American life by the development of industry.

[The rapid industrial development of the United States has] secured to the masses of the people opportunities for increased enjoyment as common privileges for all. . . . But with all the multiplication of wealth, and [the] increased power of labor through the employment of ingenious machinery and the use of electricity and steam, there have come also changed conditions and new relations. The entire country has been interlaced with lines of railway; distance has been annihilated; New York and San Francisco, Chicago and New Orleans speak together as neighbors standing face to face.

[1] From Rufus Cope, *The Distribution of Wealth.* J. B. Lippincott Co., Philadelphia, 1890; pp. 25–28.

Interdependence of the various parts of the country.

The products of one section are carried a thousand miles as easily as formerly they might have been hauled the distance of a day's drive, and are distributed throughout the nation in universal competition with the products of every other section. Dakota raises wheat for Massachusetts; Massachusetts makes shoes for California. Flour from the mills of Wisconsin competes with the flour of the mills of Pennsylvania, ground from wheat grown within a stone's throw of the latter, in the little stores in the village near by. The clothing we wear is manufactured five hundred or a thousand miles away. The wagons and ploughs, reapers and mowers of the farmers on the prairies of Kansas and Nebraska are built in the workshops of Ohio. . . .

The people of a mighty nation woven into a web of interdependent relations.

The independence of communities has been destroyed, and every man has become but a part . . . in a universal system of production and exchange. His competitors are no longer his neighbors; they are men in New York, Massachusetts, Ohio, and Illinois. The power of individuals is no longer circumscribed within the limits of small localities. The people of a mighty nation have been woven together into a web of interdependent relations, that may be held in the grasp of a single hand, and converted into a tossing blanket by the Samsons of commerce. . . .

Occupations which have been changed, or altogether destroyed.

In the place where once sat the village shoemaker now sits the cobbler, sewing ripped seams and patching holes in old shoes. In the place of a dozen wagon-makers is a man putting new spokes in old wheels, tightening tires, or renewing worn-out axles.

The blacksmith has become a shoer of horses or a sharpener of ploughs. The tailor is almost extinct. . . . The chairmaker and the weaver are but faded memories, and the cabinet-maker has given way to the undertaker who sells ready-made coffins. . . . The millwright was driven out by the roller process, and the ranks of the house-painter have been decimated in a disastrous war with mixed paints. . . . The horse-rake, the two-horse cultivator, the mower, twine-binder, and steam-thresher have taken the place of men, and the farmer buys his fence at the hardware store, in [the form of] a roll of jagged wire.

Manufacturing industries have abandoned the country village, and gathered the people under the smoke of mighty cities. The city has grown and the village decayed. In the place of a host of artisans who

Manufacturing has gathered the people under the smoke of mighty cities.

once clustered in every hamlet, breaking the dull uniformity of village life with a variety of employments . . . , we have duplicates of the village merchant, who for twenty per cent stands guard over a stock of foreign wares which he vends for cash or exchanges for butter and eggs; while the city has grown monotonous in its confusion of overabundant variety that satiates and cloys the senses like a museum of curiosities gathered for show. . . .

Man's rôle has become mechanical.

Every man has become a factor in an immense money-making scheme — a wheel in the great industrial machine. The life of each has become a part of an universal routine. He moves along well-defined paths marked out for him by the shaping hand of a material destiny, reading as he goes the familiar admonition, "Keep off the grass."

Machinery and the wage system.

In the industrial world everything is now done by machinery. Every worker performs an assigned part, and his labor is of value only in unison with that of many others. His work is often one continued round of repetition requiring no thought and little skill. He learns no trade that can be carried on independent of costly machinery, which must form a part of a manufacturing establishment requiring large capital to own or to operate. He cannot work without permission; he must first be employed. He is one of a brigade, all moving together under the command of a single head. He works for stipulated wages, and has no control over the product of his labor.

Hazards encountered by the laborer.

For the opportunity to work he may be dependent on the will of a single man, who adds to or cuts from his working-force of men, according to the pointings of the index on the register of his own interests, as an engineer regulates the force of steam by the markings of the steam-gauge of his engine. If the laborer loses his place, he may be compelled to change his residence, and to seek employment in a distant locality, without the certainty of securing it, except after such delay and expense as he is unable to afford. In the place of the independent artisan in his own shop, the proprietor of his own labor, we have the dependent factory-hand or iron-worker, a single part of a great and complex machine whose place may be supplied in an hour, should he drop out. . . .

87. The rise of the enterpriser [1]

The growing complexity of industry has given rise to a new type of specialist: the enterpriser.

In the foregoing selection Mr. Cope gives, in picturesque language, a bird's-eye view of some of the complexities of modern industry. As we have seen earlier in this book, this growing complexity of American industry has necessitated new forms of business organization. The specialization resulting from the minute division of labor will prove advantageous to the community only if the various specialists are coördinated and directed by some supervising agency. The necessity for connecting up these specialists has called into existence a type of specialist known as the enterpriser, whose primary function it is to coördinate land, labor and capital in production. The rise of the enterpriser is briefly discussed by Professor Francis A. Walker in the following passage:

Mastership essential to modern production.

Mastership is essential to a large and varied production. The industrial enterprises of the civilized states could not have been brought to their present height without mastership, and could not be maintained at that height one year without it. . . .

In the early stages of the division of labor there was little or no need for a coördinating agency.

In its first stages, the division of labor does not necessarily imply the introduction of the master-class. When the forms of production are few; when the materials are simple; when only hand-tools are used; when each artisan working at his bench makes the whole of the article to be marketed; when styles are standard, and the consumers of his product are found in the immediate neighborhood, perhaps within range of his personal acquaintance, the need of the master is not felt.

Circumstances under which the enterpriser becomes a necessity.

But when the hand-loom gives way to the power-loom; when the giant factory absorbs a thousand petty shops; when many persons, of all degrees of skill and strength, are joined in labor, all contributing to a result which perhaps not one of them comprehends perfectly or at all; when machinery is introduced which deals with the gauzy fabric more delicately than the human hand, and crushes stone and iron with more than the force of lightning; when costly materials require to be brought from the four quarters of the globe, and the products are distributed by the agencies of commerce through every land;

[1] From Francis A Walker, *Political Economy*. Henry Holt & Co., New York, 1883; pp. 76–77.

when fashion enters, demanding incessant changes in form or substance to meet the caprices of the market, the [enterpriser] becomes a necessity. . . .

The numerous functions performed by the enterpriser.

[He becomes a necessity] not alone to enforce discipline through the body of laborers thus brought under one roof; not alone to organize these parts into a whole and keep every part in its place, at its proper work; not alone to furnish technical skill, and exercise a general care of the vast property involved; but beyond these and far more than these, to assume the responsibilities of production, to decide what shall be made, after what patterns, in what quantities, at what times; to whom the product shall be sold, at what prices, and on what terms of payment. The armies of industry can no more be raised, equipped, held together, moved and engaged, without their commanders, than can the armies of war.

Production vastly increased by the activities of the modern enterpriser.

Those conditions of production which bring to the laborer the necessity of finding a master under whom he can work, bring to the man of superior abilities and acquirements, the opportunity to employ his powers for the greatest economical advantage of society, and for the greatest profit to himself. In a community where the division of labor has proceeded but a little way, the man of intellect moves but one pair of arms. In a highly organized industrial system, he moves a thousand. The vast difference in production which is wrought by the introduction of intelligence, forethought and skill, becomes multiplied just to the extent to which the principle of mastership is carried.

One man who has the genius to plan may easily find a host of helpers, each of whom can execute his schemes nearly if not quite as well as he himself individually could, who yet would have been wholly helpless and amazed in the presence of the exigencies, the difficulties, the dangers, which only arouse the spirit of the master, stimulate his faculties, and afford him the keenest zest of enjoyment. Certainly, if we look only to the largest production of wealth, that would seem to be the ideal state in which the muscular power of the whole mass of laborers should be directed by the brain-power and the will-power of the strongest and clearest minds of the community.

Conclusion.

But whether we regard this as the ideal state or not, whether we rejoice or repine at the extension of the principle of mastership in

industry, it is the most characteristic fact of the industrial system of to-day; and is likely to gain rather than to lose importance in the years to come. . . .

88. Magnitude of the problem [1]

Many millions of people involved in the problem of the distribution of wealth.

With the progress of the Industrial Revolution, fewer and fewer individuals have continued to be self-sufficing, and more and more persons have become involved in the complex division of labor. This change has brought many benefits, but it has also rendered more difficult the just distribution of wealth produced jointly. We have no reliable statistics as to the number of people in the United States who are involved in businesses conducted under what may be called the enterpriser system, but certainly it totals many millions. The capital invested in such businesses totals many billions, and every month witnesses the establishment of new enterprises with a total capitalization of millions of dollars. The following discussion of new enterprises in the United States is from the *Journal of Commerce and Commercial Bulletin:*

953 companies organized in the United States in April, 1922

Returns now available indicate that 953 companies were organized under the laws of the principal States during April, [1922,] with an authorized capital of $100,000 or over representing the sum of $792,372,000. This is the best showing since January last, when 1,042 charters were filed involving $843,652,900. But the figures are below those of April a year, when 1,125 new companies were incorporated with a combined authorization of $987,984,000.

Many lines of business involved.

A striking feature of the returns is the fact that they cover a great many lines of business or industry, suggesting increased competitive conditions in the future. At any rate bankers, captains of industry, and business men in general take an optimistic view of the outlook, which is probably based on the favorable progress now being reported toward trade recovery.

Since January 1, 3,634 new concerns have been formed, representing a grand total of $2,939,295,000. These figures compare with 4,297 new flotations with an aggregate capital of $3,840,430,000 in the corresponding four months of last year. Delaware, as usual, leads

[1] From the *Journal of Commerce and Commercial Bulletin.* New York, May 1922.

all other States in the compilation, followed by New Jersey, New York, and Massachusetts.

Oil and gas enterprises, and shipping and chemical companies.

While there was much less activity among promoters in the way of forming new oil and gas enterprises, shipping and chemical companies figure more prominently in the returns. This is indicated in the following summary:

Since the signing of the armistice new oil and gas companies have represented the colossal sum of $8,387,980,800. Shipping and chemical companies have also played a very prominent part in the returns, which will be seen from the following table:

Companies	April 1922.	April 1921.
Oil and Gas	$154,590,000	$227,470,000
Shipping	31,050,000	8,000,000
Chemical	20,055,000	9,390,000

Since Signing of Armistice	
Oil and Gas companies	$8,387,980,800
Shipping companies	952,035,500
Chemical companies	729,752,000
Total	$10,069,768,300

Following is a summary of the total incorporations with an authorized capital of $1,000,000 or over during April (953 companies):

Delaware	$470,442,000	Massachusetts	4,950,000
New Jersey	9,500,000	Maine	2,000,000
New York	7,050,000		
Total Eastern States			$493,942,000

The incorporations with $100,000 or over but under $1,000,000 were divided among the various States as follows:

Other States			$133,760,000
Delaware	$54,473,000	Connecticut	1,225,000
New York	21,135,000	Pennsylvania	1,225,000
New Jersey	8,000,000	Rhode Island	900,000
Massachusetts	1,875,000		
Total Eastern States			$104,808,000
Other States			59,862,000
Grand Total			$792,372,000

Companies incorporated in the United States during the last three years with a capital of $100,000 or more.

The following are the comparative figures as specially compiled by the *Journal of Commerce* of companies incorporated in the States during the last three years with an authorized capital of $100,000 or more:

	1922	1921	1920
January	$843,652,900	$1,243,460,200	$2,280,460,600
February	591,404,300	654,375,800	1,158,861,000
March	731,866,000	954,700,000	1,375,797,000
April	792,372,000	987,894,000	1,354,262,400
Total	$2,939,295,200	$3,840,430,000	$6,169,381,000
May	——	601,044,000	1,417,613,900
June	——	675,977,800	1,323,221,400
July	——	281,759,000	1,260,418,600
August	——	580,141,100	941,288,300
September	——	489,846,100	950,953,200
October	——	503,394,000	1,179,801,300
November	——	367,956,100	895,563,100
December	——	618,572,300	860,803,400
Total	$2,166,923,200	$7,959,141,300	$15,021,578,800

The total incorporations in the Eastern States involving $1,000,000 or over, with comparisons for a series of years, are as follows:

1921	$6,190,832,800	1910	$1,967,431,450
1920	11,645,962,800	1909	1,506,989,250
1919	10,369,706,200	1908	1,251,197,256
1918	1,507,412,500	1907	1,459,325,000
1917	3,693,243,700	1906	2,297,970,000
1916	2,876,406,800	1905	1,694,187,211
1915	1,508,637,100	1904	1,003,542,200
1914	1,032,697,500	1903	1,654,056,000
1913	1,658,304,300	1902	2,617,478,650
1912	2,694,271,000	1901	3,714,105,000
1911	2,246,771,400		

89. Interdependence of the factors of production [1]

The very term "factors of production" implies specialization and interdependence. Land is *one* factor in production, labor is a *second* factor, capital a *third*, while enterprise is still a *fourth*. Each of

[1] From Thomas Nixon Carver, *The Theory of Wages Adjusted to Recent Theories of Value.* Quarterly Journal of Economics, Vol. VIII, 1894; pp. 384–386.

Land, labor, capital, and enterprise are all necessary to modern production.

these is a factor, or an element, or one of the constituent parts, in the productive process. While the relative importance of these factors may vary widely under particular conditions, we may safely rely upon the generalization that *each* of these four is necessary in modern production, and that *no one can be spared*. The power of one factor to increase the output, will depend not only upon its own essential capacity, but upon the extent to which the other factors are present to coöperate with it. Something of the way in which the various factors are bound up together is brought out by an American economist, Professor Thomas Nixon Carver, in the following selection:

No factor alone capable of production.

Neither land, labor, nor capital, is alone capable of producing anything of value. The coöperation of all is necessary. The laborer must at least have land to stand on. Even then, without the assistance of capital in some form, his power of production will be almost nothing. Land, if we except the spontaneous fruits of the virgin soil, is absolutely barren unless labor and capital are applied. Capital in the absence of land and labor is manifestly unproductive.

Result of the relative abundance of land.

Good results can only be obtained by the combination of all [the] factors. When any one of the factors is abundant relatively to the other two, it is at a disadvantage so far as the opportunity for profitable employment is concerned. Thus, if land is abundant relatively to labor and capital, it must suffer from lack of proper cultivation; and its marginal productivity, even of quantities [of commodities], will be reduced, and its marginal productivity of values will be reduced in a still greater degree. The community would suffer less loss in total production if an acre of land were annihilated than it would if land were less abundant or labor and capital more abundant.

The case if land were relatively scarce.

If land were scarce relatively to labor and capital, each acre would contribute a greater share of the total value produced in the community than if it were abundant. Its cultivation would be more intensive; and the annihilation of an acre would displace more labor and capital, and cause it to be employed along a lower and less profitable intensive margin on the remaining portion. Consequently, land would, under these conditions, have a high marginal productivity; and the last increments of labor and capital, being employed along a comparatively unprofitable margin of cultivation, would have a low marginal productivity.

Result of the relative abundance of capital.

If capital is abundant relatively to land and labor, the opportunity for profitable investment is diminished. We must assume that at any given time the laborers are supplied with as much auxiliary capital as they can, with the knowledge they possess, make use of at the current rate of interest. If it is known to men that they can increase their profits by the use of more capital, there is no conceivable reason for their not using it. But, if men cannot see how they can profitably use more capital at current rates of interest, then there is a good reason for their not using more. This is one of the assumptions upon which the doctrine of the diminishing productivity of capital as well of labor rests. Did the productivity of capital increase as fast or faster than its quantity, we might expect every user of capital to augment his supply of tools and machinery "world without end." But the manufacturer, as well as the carpenter or the blacksmith, always comes to a point where the advantages of a few more tools are not sufficient to repay their cost.

The situation if labor increases relatively to land and capital.

If labor increases relatively to land and capital, the laborer is handicapped by lack of proper tools and sufficient room to work to the best advantage. He can therefore be less profitably employed than he can when there is a smaller number of laborers. The last laborer added to the supply adds less to the total product than his predecessors. . . .

90. The problem of distribution to-day[1]

The problem stated.

By way of summarizing the foregoing selections in this chapter, and in order to pave the way toward a better understanding of the next two chapters, we may here offer a formal statement of the problem of distribution. The problem of the distribution of wealth is the problem of dividing among the various classes in the community the products of their joint industry, or, what amounts to the same thing, the money income representing those products. A typical case is one in which it is assumed that an enterpriser has employed land, labor and capital, and is himself personally engaged in managing the business. The income of the business is to be divided

[1] From Francis A. Walker, *Political Economy*. Henry Holt & Co., New York, 1883; pp. 196–197; 201–203.

among these four groups, as Professor Francis A. Walker explains in the following selection:

Conditions in primitive and modern times contrasted.

Under the title "Distribution," we inquire what are the forces which divide wealth among the several persons, or classes of persons, who have taken part in its production. In a primitive condition of society, the problem is a very simple one. Three hunters join in an expedition, and at the conclusion of the day's or week's chase, divide their game into three equal parts. If boys or cripples, or men of less than ordinary force or skill, are taken into the partnership, it is easily determined what portion of a full man's share each such person shall receive. In a highly organized community, however, the division of the products of industry into shares corresponding to the number of persons who have taken part in production is a very complicated problem. . . .

Distribution involves a contest.

It will be noted that the distribution of the products of industry involves what may be termed a perpetual contest between the parties to production. This contest is not a destructive one, since the interest of each of the participants requires the existence, and, by consequence, the sustentation, of all the others. Yet within the limits which are consistent with this, there is opposition of interests, since what one gets the other cannot have; and there is not unlikely to arise antagonism in the methods of action of any two or more parties, seeking their separate interests.

In this contest

This contest is, in the last analysis, between individuals. We shall see that the real or supposed common interests of a number of producers may create a supposed class interest which will lead them to act in concert, with a subordination of individual preferences to the general good; but, as a rule, the efforts of individuals are directed to a personal benefit. Inasmuch, however, as it would be impossible to work out the problem of distribution with reference to each man, woman, and child in existence, or even to each man, woman, and child of any considerable community, we may aggregate individuals according to what they have in common, into classes . . . and may seek for the general law which governs the efforts of the members of each class towards the acquisition of wealth.

the classes involved

Even if we disregard petty distinctions and inconsiderable exceptions, the prime classes appearing in distribution will vary in different

countries. . . . [For the sake of clearness we shall treat the problem of distribution as it exists in a highly industrial country such as England or the United States. Under such an industrial system] we have four classes of claimants upon the product of industry, and that product is accordingly divided into four grand shares. These classes and the shares respectively received by them may be expressed as follows:

are four.

1. The landlord, receiving rent.
2. The capitalist, receiving interest.
3. The employer, or entrepreneur, receiving profits.
4. The employed laborer, receiving wages. . . .

Questions on the foregoing Readings

1. What is the most important of our industrial problems?
2. Why was the American colonist obliged to be self-sufficing?
3. Name three classes of articles manufactured on the colonial farm.
4. Name some implements which the colonial farmer made.
5. Describe the manufacture of clothing on the colonial farm.
6. Why was the distribution of wealth not a serious problem in colonial times?
7. Discuss the interdependence of the different parts of the country since the Industrial Revolution.
8. What is the meaning of the statement that "the people of a mighty nation have been woven together into a web of interdependent relations"?
9. Name some occupations which the age of machinery has changed or destroyed.
10. Discuss the cityward drift of manufacturing.
11. What has been the effect of the factory system upon the laborer?
12. What accounts for the rise of the enterpriser?
13. At what stage of industrial development was there little need of the enterpriser?
14. Under what circumstances has the enterpriser become a necessity?
15. Name some of the functions performed by the enterpriser.
16. What can be said as to the future of "the principle of mastership in industry"?
17. What can be said as to the number of people in this country who are directly affected by the problem of the distribution of wealth?
18. What can be said as to the organization of industrial companies in the United States in April, 1922?
19. What are the four factors in production?

20. Explain the statement that "neither land, labor, nor capital, is alone capable of producing anything of value."
21. Explain clearly the effect upon production of a relative abundance of land.
22. Explain clearly the effect upon production of a relative scarcity of land.
23. State the problem of the distribution of wealth.
24. What is meant by saying that "distribution involves a contest"?
25. What are the four classes involved, and in what form does each receive its share?

CHAPTER XVI

DISTRIBUTING THE INCOME OF INDUSTRY (*continued*)

91. Agricultural land values[1]

Fertility and location intimately connected with land values.

Land is one of the great factors of production, without which modern industry could not be carried on. Since land may be desired for a wide variety of purposes, its value may be affected by a large number of circumstances. In general, however, these circumstances may be reduced to two: fertility and location. In the case of agricultural land, it is generally true that fertility is more important than location, since effective transportation is more and more reducing the differences existing between plots solely because of their distance from the market. In the following selection, Adam Smith describes the importance of fertility and location in the determination of land values:

Rent varies with the fertility of land, as well as

The most desert moors in Norway and Scotland produce some sort of pasture for cattle, of which the milk and the increase are always more than sufficient, not only to maintain all the labor necessary for tending them, and to pay the ordinary profit to the farmer or owner of the herd or flock; but to afford some small rent to the landlord. The rent increases in proportion to the goodness of the pasture. The same extent of ground not only maintains a greater number of cattle, but as they are brought within a small compass, less labor becomes requisite to tend them, and to collect their produce. The landlord gains both ways; by the increase of the produce and by the diminution of the labor which must be maintained out of it.

with its location.

The rent of land not only varies with its fertility, whatever be its produce, but with its situation, whatever its fertility. Land in the neighborhood of a town gives a greater rent than land equally fertile in a distant part of the country. Though it may cost no more labor

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. Book I, chapter xi, Part I.

to cultivate the one than the other, it must always cost more to bring the produce of the distant land to market. A greater quantity of labor, therefore, must be maintained out of it; and the surplus, from which are drawn both the profit of the farmer and the rent of the landlord, must be diminished. But in remote parts of the country the rate of profits, as has already been shown, is generally higher than in the neighborhood of a large town. A smaller proportion of this diminished surplus, therefore, must belong to the landlord.

The effect of good roads, canals, and navigable rivers.

Good roads, canals, and navigable rivers, by diminishing the expense of carriage, put the remote parts of the country more nearly upon a level with those in the neighborhood of the town. They are upon that account the greatest of all improvements. They encourage the cultivation of the remote, which must always be the most extensive, circle of the country. They are advantageous to the town, by breaking down the monopoly of the country in its neighborhood. They are advantageous even to that part of the country. Though they introduce some rival commodities into the old market, they open many new markets to its produce. Monopoly, besides, is a great enemy to good management, which can never be universally established but in consequence of that free and universal competition which forces everybody to have recourse to it for the sake of self-defense. It is not more than fifty years ago, that some of the counties in the neighborhood of London petitioned the parliament against the extension of the turnpike roads into the remoter counties. Those remoter counties, they pretended, would (from the cheapness of labor) be able to sell their grass and corn cheaper in the London market than themselves, and would thereby reduce their rents, and ruin their cultivation. Their rents, however, have risen, and their cultivation has been improved since that time. . . .

92. Urban land values[1]

In the case of urban plots location is more important than fertility.

Whereas in the case of agricultural land, fertility is probably of more importance than location, the value of urban plots is more closely dependent upon location than upon fertility. Most urban plots are used as building sites, rather than the growing of produce,

[1] From Richard M. Hurd, *Distribution of Urban Land Values*. Yale Review, Vol. XI. August, 1902; pp. 124, 126–128, 138, 140, 142–143, 145.

and hence the *fertility* of the plot is of relatively small importance. On the other hand, the *location* of the plot, with reference to traffic, railroad terminals, and other factors, is very important, as Professor Richard M. Hurd brings out in the following discussion of urban land values:

The sole function of urban land.

Since the sole function of urban land is to furnish area on which buildings may be erected, economic rent measures the superiority of any location over the poorest location within the same city. . . .

The origin and growth of cities.

All settlements spring from other settlements, and start at the most convenient point of contact with the outer world, this being usually a wharf where deep water and a high bank meet, if transportation is by water; the intersection of turnpikes topographically located, if transportation is by wagon; and a railroad depot placed for the convenient shipping of products, if transportation is by rail.

At the start, external factors control the internal structure of cities, the first buildings clustering around the first transportation terminal. Whatever the type of city, growth consists of movement away from the point of origin, and is of two kinds: central, or in all directions, and axial, or along the water courses, railroads, and turnpikes which form the framework of the city. Electric street railroads and suburban railroads have greatly stimulated axial growth, producing star-shaped cities by contrast with the more circular form of the ancient walled towns. . . .

The total value of the site of a city.

The total value of the site of a city is broadly based on population and wealth, the physical city being the reflex of the total social activities of its inhabitants. . . .

In villages of but a few hundred population, land may sell by the acre, and include some agricultural features; but when the population has increased to a few thousand a business center arises, the residences become separated from it and are driven to the circumference and values run from $10 a front foot for residence property up to $100 or $150 a front foot for business property.

Some effects of urban growth.

The smaller cities of under fifty thousand population exhibit normally along transportation lines a warehouse and wholesale section, which changes into a manufacturing section as the city is left; a retail-shopping district as the center; adjoining it an indeterminate zone utilized for institutions and boarding houses; then an outer zone of

high grade or medium residences; and finally laborers' cottages at the periphery. As cities grow, increasing specialization in business causes new subdivisions in the industrial organization whose integration tends continually to greater complexity in the city's structure.

Geographical specialization in large cities.

Hence in the largest cities there arise many centers for various classes of business, a banking center, women's shopping centers, artisans' shopping centers, wholesale-retail centers, manufacturing specialized in small centers, amusement centers, club centers, and residence districts, divided into many grades, from the tenement sections near the factories and docks to the fashionable sections near the parks, while the axes of traffic run out in all directions from the city's center and carry retail shops of different grades through residence districts, the general result being great complexity in detail, with fairly simple and uniform succession of districts.

Order in which this specialization takes place.

Whatever the size or shape of a city, the order of dependence of one utility upon another remains the same, as exhibited by the pursuit of the residence sections of different classes by the shops of similar classes which supply them, the following of the higher wholesale houses after retail shops which are their customers, and the slow advance of the banking and office section into the older or wholesale districts. The general characteristic of a business district is to move slowly and continuously from the point of origin, while residences, attracted by turnpikes or street railroads, move more rapidly, leaving sometimes vacant or otherwise utilized land behind them. . . .

Two classes of urban land.

In examining the distribution of values in some typical cities, we may divide the land into two principal classes: business land and residence land. . . .

The growth of New York City,

New York exhibits almost all of the typical developments found in the smaller cities. Starting at the southern tip of Manhattan Island in 1612, and clustering for protection around the fort, the first line of growth was along Pearl Street, then the shore road to the Brooklyn Ferry, the attracting forces being the trade with Brooklyn and the better facilities for ships in the East river. . . . The various plats parallel to the East river and the North river indicate the additions from time to time made to the territory of the city. The influence of topography has been gradually overcome, ponds, swamps, and streams being filled in and hills leveled.

and some of its effects.

As the city grew north, the best residences pushed steadily up Broadway from the Battery . . . to Madison Square, above which Fifth Avenue has drawn them off, while business has continued on Broadway. . . . The best retail shops followed after the residences on Broadway. . . .

It appears quite probable that the greater part of the surface of Manhattan Island will be ultimately devoted to business solely, the space above the ground floor, if not utilized for business, being occupied by hotels, apartment houses, flats, and tenements. . . .

Land values in various districts in New York.

[The rapid growth and specialization in New York City have had a marked effect upon land values.] The average price of land in the financial district varies from $150 to $200 per square foot.

Next in the scale comes the women's shopping district on Sixth Avenue from 14th to 23d streets, also on 23d, 34th, and 42d streets, and on Broadway from 9th to 23d streets, with an average scale of $60 to $100. . . .

The wholesale district on Broadway from Canal Stret to Ninth Street varies from $30 to $60 per square foot, with the side streets from $20 down to $8. . . .

Conclusion.

Present tendencies are entirely towards greatly increased values at strategic points, although the general run of values for the great mass of medium business and residence property changes slowly. . . . Ordinarily a gradual [increase] of values for all classes of property occurs in proportion to the growth of the city, with the exception of the decaying sections left behind in the onward march, where values fall steadily, sometimes to the point of extinction. The point of highest value . . . moves onward from the first business center. . . . Apart from any factors which might deflect the line of growth, the land lying in its path is quite certain to increase in value . . . while the land which it has left behind is quite certain to sink more or less rapidly in value. . .

93. Present goods versus future goods [1]

Let us turn now to a consideration of some of the factors which influence interest. Interest is defined by the economist as an amount

[1] From Eugen von Boehm-Bawerk, *The Positive Theory of Capital.* The Macmillan Co., London, 1891; pp. 238–241, 244, 247–248.

Primitive and civilized man: a contrast.

which is paid for the use of capital. Capital means that certain types of wealth, instead of being used for the satisfaction of wants *now*, are employed to produce more wealth. The use of capital is closely bound up with the rivalry existing between present goods and future goods. Primitive peoples generally prefer to consume most of their goods in the present, and so do not lay aside much wealth to be used as capital. Civilized man, on the other hand, takes more thought for the future, and consequently tends to place more stress on the consumption of goods in the future than in the present. The following discussion of the rivalry between present goods and future goods is by Professor von Boehm-Bawerk:

We are not indifferent to the future.

In the present we live and move, but our future is not a matter of indifference to us. . . . As a fact, the future has a great place in our economical provision; a greater, indeed, than people usually think. It is, of course, a commonplace, but all the same it is a truth seldom seen in all its bearings, that our economical conduct has exceedingly little reference to the present, but is almost entirely taken up with the future.

Future sensations

Let us clearly understand what this latter statement means. It means that our anxiety in the present is to have at our disposal, in the future, means for the satisfaction of wants that will not emerge till the future. In other words, it means that pleasures or pains, which we will only experience in the future, determine us now to provide goods or services which, again, will only assert their use in the future. But how is it possible that feelings which are not yet felt, and therefore feelings which, essentially, do not exist, can be motives to will and deed?

are anticipated in imagination.

Now, as a suggestive writer has said, we do not indeed possess the gift of feeling future sensations, but we possess the other gift of anticipating them in imagination. Either it is that we have already in the past, once or many times, experienced the same want as we expect in the future, and retain a picture of it in our memory; or, at least, we have already experienced wants or feelings that bear a certain resemblance to the feelings we are expecting, and can . . . construct for ourselves an imaginative picture which is more or less true. On such pictures of memory and imagination we base our economical calculations and our economical decisions. . . .

Some examples.

We do not begin to prepare our meals when hunger has reached the highest point of torment; we do not wait till the flood has overwhelmed house and home before we think of putting up the dam; we do not delay building the fire-engine till the flames have broken over us. At the moment when we decide on an economical action, the wants which cause us to make the decision are almost always in the future, and so, however near that future may be, they are acting on us, not as actual feelings, but as simple anticipations. How many a man has never, even in the past, fully felt the want which makes him value the goods he daily uses! How many rich people know only from hearsay what real hunger is!

Value of this gift of anticipation.

Hence it is obvious that, however deceitful and unsafe this gift of anticipation may be, and however far astray it may lead us in individual cases, we still have every cause to be heartily thankful that we have it. Otherwise, neither actually feeling the future wants, nor yet forewarned of them by anticipation, we could not, of course, provide for them in advance; once want had made itself felt, any measures we could take would be miserably inadequate to provide for it; and, poorer than the poorest savages, we should drag out a hazardous hand-to-mouth existence. . . .

What is demanded of us in providing for the future.

Provision for the future makes no inconsiderable demands on our intellectual strength. [It] makes some demands, even, on our moral strength. These demands are not equally met by men at all stages of civilization. The present always gets its rights. It forces itself upon us through our senses. To cry for food when hungry occurs even to a baby. But the future we must anticipate and picture. Indeed, to have any effect in the future, we must form a double series of anticipations. We must be able to form a mental picture of what will be the state of our wants, needs, feelings, at any particular point of time. And we must be able to form another set of anticipations as to the fate of those measures which we take at the moment with a view to the future. . . .[1]

Even civilized man anticipates the future inadequately.

To make this double work of anticipating a comparatively remote future clear and true to fact, is not possible to the infant, and not much more than possible to the child and the savage. Civilization of course teaches us this difficult art gradually. But even among the most advanced peoples, the art is still very far from being perfect,

and the practical economic provision for the future is correspondingly inadequate. But be the degree of anticipation and provision for the future what it may, wherever it exists in the most general way . . . future goods and future services are as much actual objects of economical dealing as present goods. We strive to get them; we produce them; we value them; we buy and sell them. . . .

Present goods have a higher value than future goods.

But to conclude . . . that the *amount* of value of present and future goods must be identical, would be too hasty. On the contrary, since present goods are available at a different time from future ones, and therefore come under different actual circumstances, and are intended for the service of a different set of wants, it is to be argued . . . that the value of such goods must, as a rule, be different. And so it is in fact. We arrive thus at a proposition which is a fundamental one. . . . As a rule present goods have a higher . . . value than future goods of like kind and number. . . .

94. What is meant by the "productivity of capital"[1]

Two conclusions to be drawn from the foregoing selection.

From the foregoing discussion we may draw two conclusions. In the first place, civilized man is in the habit of providing for the satisfaction of his future wants. In the second place, man's natural preference is for present over future goods. These two conclusions will help us to understand the problem of interest. Suppose I am an enterpriser. I seek to borrow capital of a capitalist, but he will not grant the request until I have promised to pay interest on the loan. The interest is looked upon by the capitalist as a reward for postponing consumption of the wealth loaned to me. As for me, I am willing to pay interest on the borrowed capital because it will aid me in production. A borrower, then, is willing to pay interest because of the "productivity of capital." The precise meaning of the term "productivity of capital" Professor Charles Gide explains as follows:

A false notion, and

The part played by capital in production has given rise to unfortunate misconceptions. It is customary to say that capital yields an income. This seems to be an essential part of its nature, just as trees naturally bear fruit or as hens naturally lay eggs. Hence the income provided by capital is regarded as a product due exclusively to capital.

[1] From Charles Gide, *Principles of Political Economy*. D. C. Heath & Co., 1903; pp. 124–126.

one reason for its spread.

The spread of this false notion is partly due to the fact that a vast amount of capital is in the form of securities, bonds, or shares, to which coupons are attached representing the interest that falls due every year or every six months. The coupons "grow" in value as time advances, and when the day of payment comes they are detached and collected. Just as a fruit or seed can be sown again to produce new fruit or seed, and just as a newly laid egg can be made to produce another hen for laying more eggs, so these coupons may be used as new capital, and invested in such a way as to provide new interest-coupons. Thus it may seem that capital grows and increases according to the same laws as those that govern the multiplication of plants and animals. But the law of *compound interest* (this is the name given to the above-mentioned multiplying process of capital) is even more marvelous than the multiplication of animal organisms. It has been calculated that a single cent, invested at compound interest on the first day of the Christian era, would by now have yielded a value equal to that of some thousand million globes of solid gold as large as the earth!

Capital by itself is sterile, but

We must abandon the idea of the natural productivity of capital — an idea which has aroused the more or less justifiable ire of the socialists. This mysterious productive and generative power, attributed to capital as part of its nature, is a pure chimera. Notwithstanding the popular belief to the contrary, money does not produce money, capital does not produce capital. Not only has a bag of money never produced a single cent, as Aristotle remarked long ago, but a bale of cotton or a ton of iron never has produced any cotton or iron. Capital is inert matter, and by itself is absolutely sterile.

it may increase the productivity of labor.

But when it is put in the service of labor . . . it gives labor a degree of productivity that may be very great. With a horse and plow a farmer can produce much more wheat than with his manual labor alone. It is this increased or supplementary crop that constitutes the income from capital. It does not arise from the plow; it is due to the man aided by the plow.

Origin of the so-called income from capital.

What leads us astray is the fact that we see many persons living on their income, and even growing richer, without working. Hence it appears that their income arises from capital, and is spontaneously produced by it. In reality this income is the product of labor, —

labor which we do not see but which is not difficult to find, viz., the labor of those who borrowed the capital of its owner and who employ it productively. There can be no doubt about this. The coupons representing the interest on the bonds of a coal-mining company represent the value of the coal extracted by the labor of miners; the coupons of railway bonds represent the result of the labor of mechanics, conductors, brakemen, station masters, switchmen, etc., who perform the work of transportation.

A caution.

It is, however, possible that the capital in the hands of the borrower has been dissipated or consumed unproductively. In this case the interest received by the lender does not represent the product of the borrower's labor, but the labor of some other person whose identity is still to be sought, but who nevertheless exists somewhere. . . . [For example], when a young man borrows money to spend foolishly, the interest which he pays to the money-lender certainly does not represent the product of his own labor, but perhaps that of the workmen in his employ, or of the farmers on his estate.

95. Factors influencing the efficiency of labor[1]

The employer wants labor because of its capacity to add to the value of his product.

We come now to the third factor of production needed by the enterpriser. This is labor. Just as the enterpriser will desire land and capital in proportion to the capacity of each of these to add to the value of his product, so he desires labor because of its productivity. The wages which the enterpriser pays his workmen will depend, partly, upon the extent to which those workmen appear to him to be capable of adding to the value of the product. Some of the factors influencing the capacity or efficiency of laborers are discussed by Professor Francis A. Walker as follows:

The efficiency of laborers, for one thing, depends upon inherited strength.

The degree in which the labor of an individual shall be efficient in the . . . production of wealth depends upon several causes.

First, his inherited strength, his original endowment of physical force. This endowment varies greatly, not only as between individuals of the same community, but as between communities, nations and races. . . . In the matter of sheer lifting-strength alone, the in-

[1] From Francis A. Walker, *Political Economy*. Henry Holt & Co., New York, 1883; pp. 47, 49–55.

dividuals of one race may, on the average, surpass those of other races by fifty, one hundred or two hundred per cent; while in the matter of the use of that strength, in operations at once difficult and delicate, the range of existing differences is very much wider.

Relation of food to industrial efficiency.

A second reason for the higher industrial efficiency of the laborers of one class or nation than belongs to those of another, is found in the quantity or quality of the food consumed. . . . The human stomach bears much the same relation to the whole frame as the furnace to the steam engine. In the one, as in the other, must all the forces which are to drive the machine be generated. In the one, as in the other, the force generated will, within certain limits, increase with the material for combustion supplied. With more fuel, the engine will do more work. With more food, the man will do more work. . . . But just as there is a maximum limit with the fuel, so there is with food. After the limit is reached, the increase of food does not imply a proportional increase of force, if, indeed, any increase at all; and after a certain still higher point is reached, the increase of food brings mischief. . . .

Influence of sanitary conditions upon the efficiency of labor.

A third reason for the higher industrial efficiency of the laborers of one class or nation than of another, is found in the different sanitary conditions, especially those which concern the quality of the air. . . . Human beings confined in small and unventilated rooms inevitably lose vigor; the process of the oxidation of the blood being checked, the process of making blood, through the digestion and assimilation of the food taken into the stomach, is also checked. With foul air, therefore, a smaller amount of muscular force is generated from the same amount of food. Not only so, but the food taken into the system may become an actual obstruction and cause of disease, through the failure of digestion and assimilation. Moreover, in close rooms . . . the germs of certain diseases, known as filth diseases, viz., typhus and typhoid fevers, scarlet fever, diphtheria and others, are preserved and readily communicated, to the impairment of health and the destruction of life. . . .

The influence of intelligence.

A fourth reason for the superior efficiency of the laborers of one class or nation over those of another, is found in their higher intelligence. Intelligence is a most powerful factor in industrial efficiency. I speak not now of technical knowledge, but of clearness of mind,

quickness of apprehension, strength of memory, and the power of consecutive thought. . . .

Why the intelligent workman is more useful than the unintelligent.

The intelligent is more useful than the unintelligent laborer

(a) Because he requires a far shorter apprenticeship; he can learn his trade in a half, a third, or a quarter the time which the other requires.

(b) Because he can do his work with little or no superintendence; he is able to carry instructions in his mind, and to apply them with discretion to the varying conditions of his work.

(c) Because he is less wasteful of materials. In some branches of manufacture the value of the materials used is equal to the amount paid in wages. In others it is twice, thrice, and even ten times as much. In such branches of manufacture as these, a very little difference in the degree of thoughtfulness, foresight and regard for instructions exercised by the laborer may make a great difference in the net product. . . .

(d) Because he readily learns to use machinery, however delicate or intricate. . . . Brains are not alone required for the invention of machines; they are required for their adjustment, their ordinary use and their occasional repair. . . .

Effect of the mental attitude of the workmen.

A fifth reason for the higher efficiency of the laborers of one class or nation than of another, is found in greater cheerfulness and hopefulness, growing out of higher self-respect and social ambition, and a more direct and certain interest in the product of industry. . . . The degree in which the physical and intellectual powers may be engaged in the production of wealth depends greatly on the directness and certainty of the reward. This is proved by the difference everywhere observed between the exertions of wage laborers and those of men working on their own account. The wage laborer necessarily becomes, in a greater or less degree, a time server, an eye pleaser. He saves himself as much as he can. . . . On the other hand, he who is working for himself, keeps no grudging account of his time or exertion. If the proprietor of land, he knows that every stroke of his arm is creating wealth which he and his children are to enjoy, [and he consequently works with energy and even with eagerness.] . . .

96. Increasing the bargaining power of labor[1]

Importance of the bargaining power of laborers

The efficiency of the laborer will have a strong influence upon the extent to which the employer will desire his services. But though an employer sees an opportunity to add a great deal of value to his product by the hiring of an additional laborer, he will not ordinarily pay that workman a correspondingly high wage unless compelled to do so. Thus in studying the question of wages, we must take into account not only the *efficiency* of workmen, but their *bargaining power*. Formerly, workmen were unorganized and employers were generally able to drive bargains which gave the employees relatively small wages; within the last century, however, workmen have organized into trade unions, and by means of this device, have greatly increased their bargaining power. The relation of trade unionism to wages is explained in the following passage by an English economist, J. E. Cairnes:

The trade union may seek to raise wages directly.

The methods by which trade unions seek to operate on the rate of wages are numerous. . . .

It is obvious at once . . . that where workmen have the power of combining, it will always be possible for them, by taking advantage of particular exigencies, to compel their employers to a temporary advance of wages. . . . To a certain extent all persons who embark their means in business are at the mercy of those on whose coöperation they rely for carrying their plans into effect, and this liability to be injured by refusal on the part of others to coöperate will evidently become greater in proportion as the preliminary outlay incident to the undertaking is large. A capitalist, for example, who has committed himself to an industrial enterprise by making large purchases of building and plant, wherewith to carry it on, must find laborers to work for him, or suffer heavy loss, for either (his capital lying idle) he loses the interest it might bring him; or, if he attempts by sale or otherwise to convert it into other forms, it is pretty sure to be largely depreciated in the process.

Under these circumstances, supposing the workmen on whom he relies to strike for higher wages and that he has reason to believe that

[1] From J. E. Cairnes, *Political Economy*. Harper & Brothers, New York, 1874; pp. 220–221, 242–243.

they possess the resolution and are in command of funds sufficient to enable them to maintain a prolonged strike, it may be his wisdom to concede their demands, even though the result should be not merely to bring his profits below the minimum, but to annihilate them altogether, or even convert them into loss, since the entire cessation of his business for so long a period might involve him in still greater loss. . . .

The trade union may influence the supply of labor either by encouraging a low birth rate, or

[The trade union may seek to operate on the rate of wages] by regulations directed toward restricting the supply of labor. . . . It is important to discriminate between two perfectly distinct methods by which the supply of labor may be controlled. It may, in the first place, be controlled at its source by diminishing the number of people born to the calling of labor . . . for example, by cultivating among the laboring classes a sounder public opinion on the subject of population than at present prevails, by impressing on parents their responsibility toward their offspring. . . . This is one method by which it may be attempted to operate on the labor market through the supply of labor.

by opposing barriers to the admission of workmen to particular trades.

But the end in view may also be sought by another path, namely, by opposing artificial barriers to the admission of workmen to particular trades — for example, by regulations excluding from employment in the protected trades all who have not been regularly apprenticed to them, setting limits at the same time to the number of apprentices which each master tradesman may receive; the multiplication of the laboring people as a whole and of each portion of it being left to the influences which at present determine it. . . .

Questions on the foregoing Readings

1. Show how rent varies with fertility.
2. Show how rent varies with location.
3. What is the effect upon rent of good roads, canals, and navigable rivers?
4. Which has the greater effect upon urban land values, fertility or location?
5. What is the sole function of urban land?
6. Upon what is the total value of the site of a city based?
7. Describe the manner in which different types of activities localize in different parts of a growing city.
8. In what order does this specialization take place?
9. What are the two classes of urban land?

10. Describe the growth of New York City, and some of the effects of this growth upon relative land values.
11. What place does the future hold in our economical provision?
12. How do we measure the feeling of future sensations?
13. What is the relation of civilization to provision for the future?
14. Compare the value of present goods with the value of future goods.
15. What false notion concerning the productivity of capital has gained a wide circulation?
16. What is one reason for the spread of this false notion?
17. Explain the statement that "capital is inert matter, and by itself is absolutely sterile."
18. What is the origin of the so-called income from capital?
19. What is the relation of the laborer's efficiency to inherited strength? to food? to sanitation?
20. Give four reasons why the intelligent workman is more useful than the unintelligent workman.
21. What is the relation between industrial efficiency and the mental attitude of the workmen?
22. What is the relation between wages and the bargaining power of the workman?
23. Under what circumstances may the trade union force an increase in wages?
24. What is one way in which the trade union may seek to restrict the supply of labor?
25. What is a second way in which the trade union may seek to restrict the supply of labor?

CHAPTER XVII

DISTRIBUTING THE INCOME OF INDUSTRY (*concluded*)

97. How rent is measured[1]

Professor Walker on rent.

In the last chapter we noticed some of the influences which affect the amounts which the enterprise will pay for the use of land, labor, or capital. In this chapter we shall notice, briefly, something of the way in which the actual shares in distribution are determined. Let us begin with rent, discussed by Professor Francis A. Walker in the following passage:

Rent defined.

Rent is the term applied to the remuneration received by the land-owning class for the use of the native and indestructible powers of the soil, or, as it might be expressed, for the use of natural agents. . . . The term land, or natural agents, must be understood to include not only arable land, but pasture, timber lands, mineral deposits, water privileges, and building sites. For the present discussion, however, it will be best to take our illustrations from the occupancy and cultivation of arable land. . . .

The case assumed.

Let us suppose a community, isolated from all others, to occupy a circular tract of land divided . . . into four sectors equal in extent but so differing in fertility that one piece will, with so many days' labor in the year . . . yield 24 bushels of wheat per acre, while the second will yield, with the same amount of labor, but 22 bushels, the third but 20 bushels, and the fourth but 18. . . . In order further to simplify the problem, we will suppose that all the inhabitants of this community reside in a village at the center.

The anterent stage of cultivation.

Let the first case taken be when the village is yet so small that all the wheat required for the subsistence of the population can be raised upon a portion only of what we will call the 24-bushel tract. . . . Each owner of land in this tract will be desirous of securing for himself

[1] From Francis A. Walker, *Political Economy*. Henry Holt & Co., New York, 1883; pp. 203–208.

whatever compensation, if any, is to be paid for the use of land. But as the entire tract is not required for cultivation, and, as, consequently, only a part of the owners can receive any compensation for their land, an active competition will set in, each man offering the use of his land for less and less, in order to get something, until rent falls to a minimum, or disappears altogether. . . .

Rent emerges.

Let us now advance to the second stage. We will suppose that the population of the village has increased to such an extent that the whole of the 24-bushel tract will no longer raise (when cultivated as it has heretofore been) all the wheat required for the subsistence of the community. Cultivation will then be driven down to an inferior grade of soils. A part of the second tract, the 22-bushel tract, will be taken up. Do you ask, why not increase the amount of labor upon the 24-bushel tract, and so raise more wheat to the acre, until the wants of the community are satisfied? I answer, because of the great fact of diminishing returns. . . . In every country of the world . . . cultivation is seen descending to grades of soils below the best, because the yield from the highest grades cannot be increased proportionally to an increase of labor expended thereon. . . .

The amount of rent which will be paid.

[Rent now appears, and will be paid for the 24-bushel tract, and for each portion of it.] Why? Because any person desiring to raise wheat may better . . . pay something for cultivating a portion of that tract, than cultivate a portion of the new lands for nothing. How much will he pay? Exactly the difference between the crops to be grown on the two soils, with the same application of labor, *i.e.* two bushels. [This is so because] he can afford to pay this rent rather than move to the less productive soil; and as some must so move, the landlord will be able to exact the maximum rent from the present cultivator: if not, from some other.

The cultivation of the third grade of land, and the effect upon rent.

Let us now advance another stage, and suppose the increase of population to require the cultivation of the 20-bushel tract. The effect of this downward movement of the limit of cultivation will be two fold:

First, the 22-bushel tract will begin to bear a rent, since any cultivator can better afford to pay a certain rent for the privilege than occupy a portion of the new land for nothing. The amount of that rent will be determined by the difference in productiveness between the two tracts, being in the case supposed, two bushels an acre.

Secondly, the tract first cultivated now brings its owner a rent, not of two bushels but of four. It is no better land than it was before; it produces no more wheat under the same application of labor and capital; yet it yields its owner a rent twice as great as before cultivation descended to the third grade of soils; and that increase of rent takes place simply and solely because cultivation has so descended. . . .

The law of rent.

If we have correctly traced the course of self-interest, in dealing with the occupation of land, under the necessity of a resort to inferior soils for the sustentation of the community, we are prepared to state the law of rent. Rent arises out of differences existing in the productiveness of different soils under cultivation at the same time for the purpose of supplying the same market. The amount of rent is determined by the degree of those differences. Specifically, the rent of any piece of land is determined by the difference between the annual yield and that of the least productive land actually cultivated for the supply of the same market. . . .

98. The rate of wages[1]

Complexity of the problem.

The determination of the rate of wages is in some respects much more difficult than is the determination of rent. In general we may say that wages are determined by the relation of the demand for labor to the supply of labor. This statement is of little value, however, unless we analyze supply and demand and understand precisely what each implies. The demand for labor will depend upon its productivity relatively to the productivity of the other factors of production; the supply of labor will depend upon a number of factors, such as the birth rate, immigration, etc. Ultimately, wages in a particular industry must be at least high enough to attract workmen toward that type of industry. When we say that an engineer gets high wages because his education was expensive, we do not mean that an engineer can command a high income simply because he spent a great deal on his education. But we do mean that if engineers have expended much money in getting an education, and then the rate of pay is steadily low, in time men will go into other professions, and the re-

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776; Book I, chapter X, Part I.

sulting shortage of engineers will ultimately bring up the pay sufficiently to at least compensate for their education. This is important to bear in mind in reading the following discussion of wages by Adam Smith:

The effect of ease and cleanliness upon wages.

First, the wages of labor vary with the ease or hardship, the cleanliness or dirtiness . . . of the employment. Thus in most places, take the year round, a journeyman tailor earns less than a journeyman weaver. His work is much easier. A journeyman weaver earns less than a journeyman smith. His work is not always easier, but it is much cleanlier. A journeyman blacksmith, though an artificer, seldom earns so much in twelve hours as a collier, who is only a laborer, does in eight. His work is not quite so dirty, is less dangerous and is carried on in daylight, and above ground. . . .

The cost of training and education influences wages.

Secondly, the wages of labor vary with the easiness and cheapness, or the difficulty and expense, of learning the business. When any expensive machine is erected, the extraordinary work to be performed by it before it is worn out, it must be expected, will replace the capital laid out upon it, with at least the ordinary profits. A man educated at the expense of much labor and time to any of those employments which require extraordinary dexterity and skill, may be compared to one of those expensive machines. The work which he learns to perform, it must be expected, over and above the usual wages of common labor, will replace to him the whole expense of his education, with at least the ordinary profits of an equally valuable capital. It must do this, too, in a reasonable time, regard being had to the very uncertain duration of human life. . . .

An illustration.

The difference between the wages of skilled labor and those of common labor is founded upon this principle. . . . [Those desiring to become skilled laborers must first serve an apprenticeship.] During the continuance of the apprenticeship, the whole labor of the apprentice belongs to his master. In the meantime he must, in many cases, be maintained by his parents or relations, and in almost all cases must be clothed by them. Some money, too, is commonly given to the master for teaching him his trade. . . . In country labor on the contrary, the laborer, while he is employed about the easier, learns the more difficult parts of his business, and his own labor maintains him through all the different stages of his employment.

It is reasonable, therefore, that in Europe the wages of mechanics, artificers, and manufacturers, should be somewhat higher than those of common laborers. . . . Education in the ingenious arts and in the liberal professions, is still more tedious and expensive. The pecuniary recompense, therefore, of painters and sculptors, of lawyers and physicians, ought to be much more liberal: and it is so accordingly. . . .

Wages vary with the constancy of employment.

Thirdly, the wages of labor in different occupations vary with the constancy or inconstancy of employment. Employment is much more constant in some trades than in others. In the greater part of manufactures, a journeyman may be pretty sure of employment almost every day in the year that he is able to work. A mason or bricklayer, on the contrary, can work neither in hard frost nor in foul weather, and his employment at all other times depends upon the occasional call of his customers. He is liable, in consequence, to be frequently without any. What he earns, therefore, while he is employed, must not only maintain him while he is idle, but make him some compensation for those anxious and desponding moments which the thought of so precarious a situation must sometimes occasion. [Thus masons and bricklayers earn from one half more to double the wages of common laborers.] . . . No species of skilled labor, however, seems more easy to learn than that of masons and bricklayers. . . . The high wages of those workmen, therefore, are not so much the recompense of their skill, as the compensation for the inconstancy of their employment. . . .

99. The rate of interest [1]

Interest determined by supply and demand.

Just as in the case of wages, we may say that the rate of interest is, in the long run, determined by the two forces of supply and demand. The meaning of the expression "forces of supply and demand," as they apply to the problem of interest, is explained by Professor Alfred Marshall as follows:

We conclude . . . that the higher the benefits to be derived from the possession of wealth, whether in the form of trade-capital or any other; the greater, as a rule, are the inducements to work and to wait

[1] From Alfred Marshall, *Principles of Economics*. The Macmillan Co., London, 1891. Vol. I, pp. 618–621.

in order to accumulate wealth. . . . The increase of real income above the mere necessaries of life is constantly augmenting the *power* to save, an increased regard for the future is increasing the *will* to save; and, under the action of these two causes together, the rate of growth of wealth is increasing faster than ever now, in spite of the fact that, as a result of this increase, the rate of interest is falling. But it is still true that, other things being equal, an increase in the rate of interest tends to accelerate saving, and to increase the aggregate stock of capital. . . .

On the whole, a rise in the rate of interest tends to increase saving.

The demand for capital has increased as steadily, and almost as rapidly, as the supply of it, and chiefly as a result of the same causes. The progress of knowledge has constantly opened up new opportunities of investing present effort in roundabout methods of production, which make the total results of that effort in the long run much greater than if it had been devoted to the direct attainment of immediate gratifications: progress has increased the economy of effort which can in the long run be obtained by making machinery and other appliances for use in agriculture, in manufacture, and, above all, in transport.

The demand for capital has increased steadily and rapidly.

Parallel with these changes there has been a great change in the forms of wealth itself. Not only have the implements of production risen in importance relatively to stored-up sources of direct enjoyments, such as houses, furniture, etc., but of these implements of production a constantly increasing proportion has taken the form of trade capital. [This means that] it has been applied to produce things that will be sold for money, and not used by those who produce them, and the money income or "interest" which capital can be made to yield has therefore steadily become more important. . . .

[The demand for capital also depends upon the rate of interest, as may be shown by the example of hat-making.] Suppose that the rate of interest is 3 per cent per annum . . . and that the hat-making trade absorbs a capital of five million dollars. This implies that there are five million dollars' worth of capital which the hat-making trade can turn to so good account that they would pay 3 per cent per annum *net* for the use of it rather than go without it. . . .

The hat-making trade as an illustration of

Competition prevents anything more than the ordinary trade profit being got by the use of this necessary capital, but the loss of it would be so injurious that those in the trade would have been willing to

the demand for capital.

pay 50 per cent on the capital, if they could not have got the use of it on easier terms. There may be other machinery which the trade would have refused to dispense with if the rate of interest had been 20 per cent per annum, but not if it had been higher. If the rate had been 10 per cent., still more would have been used; if it had been 6 per cent still more; if 4 per cent still more; and finally the rate being 3 per cent, they use more still. When they have this amount, the marginal utility of the machinery, *i.e.* the utility of that machinery which is only just worth their while to employ, is measured by 3 per cent.

The effect of a rise or fall in the rate of interest.

A rise in the rate of interest would diminish their use of machinery, for they would avoid the use of all that did not give a net annual surplus of more than 3 per cent on its value. And a fall in the rate of interest would lead them to demand the aid of more capital, and to introduce machinery which gave a net annual surplus of something less than 3 per cent on its value. Again, the lower the rate of interest, the more substantial will be the style of building used for the hat-making factories and the homes of the hat-makers; and a fall in the rate of interest will lead to the employment of more capital in the hat-making trade in the form of larger stocks of raw material, and of the finished commodity in the hands of retail dealers. . . .

The methods in which capital will be applied may vary much, even within the same trade. Each [enterpriser] will push the investment of capital in his business in each several direction until what appears in his judgment to be the margin of profitableness is reached; and that margin is . . . a boundary line . . . moving irregularly outwards in all directions whenever there is a fall in the rate of interest at which extra capital can be obtained. Thus the demand for the loan of capital is the aggregate of the demands of all individuals in all trades; and it obeys a law similar to that which holds for the sale of commodities. Just as there is a certain amount of a commodity which can find purchasers at any given price, and when the price rises the amount that can be sold diminishes, so it is with regard to the use of capital. . . .

Conclusion.

Thus then interest, being the price paid for the use of capital in any market, tends toward an equilibrium level such that the aggregate demand for capital in that market, at that rate of interest, is equal to the aggregate stock forthcoming there at that rate. . . .

100. The nature of profits [1]

Profits a fourth share in the distribution of wealth.

In the last chapter we developed some of the factors *influencing* the share of wealth going to land, the share going to capital, and the share going to labor. In the foregoing selections in this chapter we discussed, in a summary way, the manner in which the share going to each of these factors is actually *determined*. We have now to consider the fourth share, that going to the enterpriser in the form of profits. The general nature of profits is described in the following selection by John Stuart Mill:

Position of the enterpriser.

We next proceed to the share of the [enterpriser]; the profits of capital or stock; the gains of the person who advances the expenses of production — who, from funds in his possession, pays the wages of the laborers, or supports them during the work; who supplies the requisite buildings, materials, and tools or machinery; and to whom, by the usual terms of the contract, the produce belongs, to be disposed of at his pleasure. After indemnifying him for his outlay, there commonly remains a surplus, which is his profit. . . .

The term "profits" includes interest on the capital which the enterpriser has invested in his own venture,

Of the gains, however, which the possession of a capital enables a person to make, a part only is properly an equivalent for the use of the capital itself; namely, as much as a solvent person would be willing to pay for the loan of it. This, which as everybody knows is called interest, is all that a person is enabled to get by merely abstaining from the immediate consumption of his capital, and allowing it to be used for productive purposes by others. The remuneration which is obtained in any country for mere abstinence is measured by the current rate of interest on the best security. . . . What a person expects to gain, who superintends the employment of his own capital is always more, and generally much more, than this. . . .

compensation for risk,

The surplus is partly compensation for risk. By lending his capital on unexceptionable security he runs little or no risk. But if he embarks in business on his own account, he always exposes his capital to some, and in many cases to very great, danger of partial or total loss. For this danger he must be compensated, otherwise he will not incur it.

[1] From John Stuart Mill, *Principles of Political Economy*. D. Appleton & Co., New York, 1885; pp. 216–219.

and reward for superintendence.

He must likewise be remunerated for the devotion of his time and labor. The control of the operations of industry usually belongs to the person who supplies the whole or the greatest part of the funds by which they are carried on, and who, according to the ordinary arrangement, is either alone interested, or is the person most interested (at least directly), in the result. To exercise this control with efficiency, if the concern is large and complicated, requires great [diligence], and often no ordinary skill. This [diligence] and skill must be remunerated.

Summary.

The gross profits from capital, the gains returned to those who supply the funds for production, must suffice for these three purposes; and the three parts into which profit may be considered as resolving itself may be described respectively as interest, insurance, and wages of superintendence. . . .

The minimum of profits

The lowest rate of profit that can permanently exist is that which is barely adequate, at the given place and time, to afford an equivalent for the abstinence, risk, and exertion implied in the employment of capital. From the gross profit has first to be deducted as much as will form a fund sufficient on the average to cover all losses incident to the employment. Next, it must afford such an equivalent to the owner of the capital for forbearing to consume it as is then and there a sufficient motive to him to persist in his abstinence. How much will be required to form this equivalent depends on the comparative value placed . . . upon the present and the future. . . . Further, after covering all losses, and remunerating the owner for forbearing to consume, there must be something left to recompense the labor and skill of the person who devotes his time to the business.

is exceedingly variable.

Such, then, is the minimum of profits. But that minimum is exceedingly variable, and at some times and places extremely low, on account of the great variableness of two out of its three elements. That the rate of necessary remuneration for abstinence, or in other words the effective desire of accumulation, differs widely in different states of society and civilization, has been seen in a former chapter. There is a still wider difference in the element which consists in compensation for risk.

The remuneration of capital in different employments (much more than the remuneration of labor), varies according to the circum-

stances which render one employment more attractive or more repulsive than another. For example, the profits of retail trade, in proportion to the capital employed, exceed those of wholesale dealers or manufacturers, for this reason among others: that there is less consideration attached to the employment. The greatest of these differences, however, is that caused by difference of risk. The profits of a gunpowder-manufacturer must be considerably greater than the average, to make up for the peculiar risks to which he and his property are constantly exposed. When, however, as in the case of marine adventure, the peculiar risks are capable of being, and commonly are, commuted for a fixed payment, the premium of insurance takes its regular place among the charges of production, and the compensation which the owner of the ship or cargo receives for that payment does not appear in the estimate of his profits, but is included in the replacement of his capital. . . .

101. Attitude of the business man toward risk[1]

The risks of industry, with particular reference to the enterpriser.

Each of the factors of production may be said to run certain risks. The capitalist loaning out his capital runs the risk of its being squandered by a dishonest borrower; the land owner risks the abuse of his property when he allows the business man the use of it; the laborer is subject to accident, unemployment and other hazards. But in an important sense, the risks of a particular business venture are concentrated upon the enterpriser. It is he who gathers together the other factors, assumes the responsibility of paying them, and undertakes to find his way to success through a host of competitors. To some extent these risks discourage men from going into business; on the other hand, the desire to gain and the inherent self-confidence of men tempt them to minimize the hazards of industry. The effect of self-confidence upon economic activity is discussed by Adam Smith as follows:

The over-weening conceit which the greater part of men have of their own abilities, is an ancient evil remarked by the philosophers and moralists of all ages. Their absurd presumption in their own good

[1] From Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. Book I, chapter x, Part I.

Most men have an over-weening conceit of their abilities.

fortune, has been less taken notice of. It is, however, if possible, still more universal. There is no man living who, when in tolerable health and spirits, has not some share of it. The chance of gain is by every man more or less over-valued, and the chance of loss is by most men under-valued, and by scarce any man, who is in tolerable health and spirits, valued more than it is worth.

This statement borne out by the universal success of the lottery.

That the chance of gain is naturally over-valued, we may learn from the universal success of lotteries. The world neither ever saw, nor ever will see, a perfectly fair lottery; or one in which the whole gain compensated the whole loss; because [if a lottery were perfectly fair, the person in charge] could make nothing by it. In the state lotteries the tickets are really not worth the price which is paid by the original subscribers, and yet commonly sell in the market for twenty, thirty, and sometimes forty per cent advance. The vain hope of gaining some of the great prizes is the sole cause of this demand. The soberest people scarce look upon it as a folly to pay a small sum for the chance of gaining ten or twenty thousand pounds, though they know that even that small sum is perhaps twenty or thirty per cent more than the chance is worth. . . .

The neglect to carry insurance is due to a contempt for risk.

That the chance of loss is frequently under-valued, and scarce ever valued at more than it is worth, we may learn from the very moderate profit of insurers. In order to make insurance . . . a trade at all, the common premium must be sufficient to compensate the common losses, to pay the expense of management, and to afford such a profit as might have been drawn from an equal capital employed in any common trade. . . . But though many people have made a little money by insurance, very few have made a great fortune, and from this consideration alone . . . that the ordinary balance of profit and loss is not more advantageous in this, than in other common trades by which so many people make fortunes. Moderate, however, as the premium of insurance commonly is, many people despise the risk too much to care to pay it. . . .

Young people are likely to overvalue the chance of gain.

The contempt for risk and the presumptuous hope of success, are in no period of life more active than at the age at which young people choose their professions. How little the fear of misfortune is then capable of balancing the hope of good luck, appears still more evidently in the readiness of the common people to enlist as soldiers,

or to go to sea, than in the eagerness of those of better fashion to enter into what are called the liberal professions. . . .

The glamour of distant hazards

The dangers and hair-breadth escapes of a life of adventures, instead of disheartening young people, seem frequently to recommend a trade to them. A tender mother, among the inferior ranks of people, is often afraid to send her son to school at a sea-port town, lest the sight of the ships and the conversation and adventures of the sailors should entice him to go to sea. The distant prospect of hazards, from which we can hope to extricate ourselves by courage and address, is not disagreeable to us, and does not raise the wages of labor in any employment. In trades which are known to be very unwholesome, the wages of labor are always remarkably high. Unwholesomeness is a species of disagreeableness, and its effects upon the wages of labor are to be ranked under that general head. . . .

102. Profits tend to a uniform level[1]

Why profits tend to sink to a uniform level.

The tendency for men to look with satisfaction upon their own abilities, and with optimism upon their chances for success, is of great importance in business life. Under conditions of free competition, thousands of keen-eyed and self-confident men are constantly on the outlook for a chance to increase their income. If for some reason profits are higher in a particular industry, say wheat-milling, then business men with capital will tend to crowd into that industry in order to share in the higher profits. The result tends to be that this competition will lead to an over-supply of the product, over-supply to lower prices, and lower prices to diminished profits. As the result of this process, profits in wheat-milling will at length sink to the level of profits in competitive industries. This tendency for profits to sink to a uniform level is discussed by John Stuart Mill as follows:

John Stuart Mill on profits.

The rate of profit on capital in all employments tends to an equality. That portion of profit which is properly interest, and which forms the real remuneration for abstinence, is strictly the same at the same time and place, whatever be the employment. The rate of interest, on equally good security, does not vary according to the

[1] From John Stuart Mill, *Principles of Political Economy*. D. Appleton & Co., New York, 1885; pp. 221–223.

destination of the principal, though it does vary from time to time very much, according to the circumstances of the market.

Profits vary from individual to individual.

It is far otherwise with gross profit which, though it does not vary much from employment to employment, varies very greatly from individual to individual, and can scarcely be in any two cases the same. It depends on the knowledge, talents, economy, and energy of the [enterpriser] himself, or of the agents whom he employs; on the accidents of personal connection; and even on chance. Hardly any two dealers in the same trade, even if their commodities are equally good and equally cheap, carry on their business at the same expense, or turn over their capital in the same time. That equal capitals give equal profits, as a general maxim of trade, would be as false as that equal age or size gives equal bodily strength, or that equal reading or experience gives equal knowledge. The effect depends as much upon twenty other things as upon the single cause specified.

Different employments hold out equal *expectations* of profits.

On an average (whatever may be the occasional fluctuations) the various employments of capital are on such a footing as to hold out, not equal profits, but equal *expectations* of profit, to persons of average abilities and advantages. By equal, I mean after making compensation for any inferiority in the agreeableness or safety of an employment. If the case were not so; if there were, evidently, and to common experience, more favorable chances of pecuniary success in one business than in others, more persons would engage their capital in the business. If, on the contrary, a business is not considered thriving; if the chances of profit in it are thought to be inferior to those in other employments; capital gradually leaves it, or at least new capital is not attracted to it; and by this change in the distribution of capital between the less profitable and the more profitable employments, a sort of balance is restored. . . .

How capital flows from one employment to another.

This equalizing process, commonly described as the transfer of capital from one employment to another, is not necessarily the onerous, slow, and almost impracticable operation which it is very often represented to be. In the first place, it does not always imply the actual removal of capital already embarked in an employment. In a rapidly progressive state of capital, the adjustment often takes place by means of the new accumulations of each year, which direct themselves in preference toward the more thriving trades. Even when a

real transfer of capital is necessary, it is by no means implied that any of those who are engaged in the unprofitable employment relinquish business and break up their establishments. The numerous and [diversified] channels of credit through which . . . unemployed capital diffuses itself over the field of employment, flowing over in greater abundance to the lower levels, are the means by which the equalization is accomplished. The process consists in a limitation by one class of dealers or producers and an extension by the other of that portion of their business which is carried on with borrowed capital. . . .

Conclusion.

In general, then, although profits are very different to different individuals, and to the same individual in different years, there cannot be much diversity at the same time and place in the average profits of different employments (other than the standing differences necessary to compensate for difference of attractiveness), except for short periods, or when some great permanent revulsion has overtaken a particular trade. . . .

Questions on the foregoing Readings

1. Define rent.
2. What case does Professor Walker assume in order to explain rent?
3. What is meant by an "ante-rent stage of cultivation"?
4. Describe the emergence of rent.
5. How is rent measured?
6. What is the "law of rent"?
7. What is the meaning of the statement that "an engineer gets high wages because his education was expensive"?
8. What is the effect upon wages of ease and cleanliness?
9. How does Adam Smith illustrate the effect of cost of training upon wages?
10. Explain the statement that "wages vary with the constancy of employment."
11. What, on the whole, is the effect upon saving of a rise in the rate of interest?
12. Name some factors which help to explain the increasing demand for capital.
13. Illustrate the statement that the demand for capital depends upon the rate of interest.
14. What is meant by saying that interest "tends toward an equilibrium level"?
15. What is the position of the enterpriser with reference to the problem of distribution?

16. Into what three shares may "gross profits" be divided?
17. What can be said as to the minimum of profits?
18. Discuss the variability of profits.
19. What has Adam Smith to say concerning "over-weening conceit"?
20. What instinct in man is responsible for the universal success of the lottery?
21. What is the significance of the fact that many men neglect to carry insurance?
22. What is the attitude of young people toward risk?
23. Why do profits tend to sink to a uniform level?
24. Why do profits vary from individual to individual?
25. How may capital be transferred from one employment to another?

CHAPTER XVIII

SUMMARY AND FORECAST

103. The evolution of private property [1]

Nature of the capitalistic system.

We are accustomed to speak of capitalism as constituting an industrial "system." The term "system" is thus applied because capitalism not only exhibits a considerable regularity of outline, but in addition shows a strong tendency to function in conformity with the basic laws of economics. The capitalistic system, as it may be called, is based upon certain fundamental institutions and principles. Of these bases of capitalism, the right of private property is one of the oldest and most important. The evolution of private property is described by Professor Charles Gide in the following passage:

The beginnings of private property.

At the present time all wealth that can be appropriated — which excludes the air, the sea, running waters — may become the object of private property rights. In civilized communities almost all wealth constitutes some one's private property. This, however, has not always been the case. There was a time when the scope of private property was confined to a few objects. There is no doubt that at first it comprised only those kinds of wealth that in civilized countries have long ago ceased to be the object of property rights, namely, slaves and women. It also included objects of immediate personal use, — such as jewels, weapons, horses, — the individual ownership of which was evidenced by the custom of burying them with their owner. . . .

Extension of property rights.

Later, property came to include the home, — not as individual property, but as family property, — because the home was the abiding place of the household gods, and these gods belonged to the family. Still later, it extended to a portion of the land. . . .

[1] From Charles Gide, *Principles of Political Economy*. D. C. Heath & Co., 1903; pp. 430–436.

Different kinds of property have successively played a dominant part in the history of mankind. Among pastoral tribes, cattle is the most important property; under feudalism, land; and in the era of steam, coal mines. Private property has, in our own times, been extended to a multitude of new objects of which our ancestors knew nothing. Among these are: (1) So-called invisible property; that is, credit claims or shares in the stock of industrial enterprises, represented by mere pieces of paper that can be slipped into a pocket-book, and which to-day constitute a most convenient and desirable kind of wealth; (2) works of literature, science, and art, which have become the object of property rights under the name of copyrights and patents. . . .

Order in which the attributes of private property may have been acquired: The right to exploit, the right of gift,

So far as we can conjecture, the order in which the right of private property successively acquired its essential attributes was as follows:

(1) Probably the first property right was that of *exploiting* one's possessions, that is, making them yield something for the owner by means of the labor of others, — formerly by the labor of slaves, and subsequently by the labor of free wage-workers (employees). . . .

(2) The right of *gift*, at least in the case of movable objects, seems to have been one of the oldest ways of making use of wealth and anterior even to the right to sell. . . .

the right to sell or rent,

(3) The rights to *sell* and to *rent* seem to have sprung up much later. In the fourth century before Christ, Aristotle declared that these were necessary attributes of the right of property; but he does not seem to imply that they were generally recognized at that time. In fact, there are many reasons why they should not have been recognized. As long as property was vested in the family and bore the imprint of religious consecration — and this was the marked characteristic of antique property — the transfer of ownership was not sanctioned; at all events, it constituted an act of impiety on the part of any member of the family. Moreover, exchange and the division of labor did not yet exist; each family sufficed unto itself; movable objects of property were few in number. Hence every one kept these objects permanently; sometimes they were buried with the owner. Under these circumstances, sale could be regarded only as an exceptional and abnormal act. Accordingly, when sale is

first introduced, we find it solemnized by extraordinary ceremonies, and partaking of the nature of a public event. . . .

and the right to bequeath.

(4) The right to *bequeath*, which has always been regarded as the most important attribute and the crowning feature of the right of property. . . . [This attribute] was even slower in becoming a part of the right of property. This right, moreover, came into conflict with the right of family inheritability, to which we have already referred; and it obviously could not have been recognized until property had entirely lost its family character and become thoroughly individual. There is reason to believe that even at Rome, where individual property was ultimately so vigorously developed, the father of the family did not have the right to bequeath until the establishment of the Law of the Twelve Tables (450 B.C.). . . .

When the right of property has acquired these four characteristics, it may be regarded as complete. . . .

104. Our patent system [1]

Meaning of the word "patent."

A second basis of the capitalistic system is some orderly arrangement for the patenting of inventions. The word "patent" means "open; made public." Inventions often start as secret processes; when they are patented they are made available for the common good, while at the same time the inventor's rights in his discovery are protected. In this country a "patent" is a document issued by the Patent Office in the name of the United States Government, granting to an inventor the exclusive right to make, use, and sell his invention for a limited period of years. The following brief description of our patent system is by Mr. George A. Mirick:

How our patent system began.

We shall find in our Constitution under the heading "Powers granted to Congress" the following: "8. To promote the progress of science and the useful arts, by securing to authors and inventors the exclusive right to their respective writings and discoveries." It is interesting to know that George Washington was not only an inventor of no mean ability, but that, as the first President of our country, he urged the passing of a patent law in his first address to Congress. A law to accomplish these results was passed in 1790. During that year

[1] From the Department of the Interior, Bureau of Education, *Lessons in Community and National Life*. Washington, 1918. Series C, pp. 101–104.

only three patents were granted, and during the first three years after the passage of the patent law only fifty-seven were granted.

In 1836 the Patent Office is established.

In those days it was the business of three cabinet officers to consider applications for patents and to decide whether they should be issued or not. One clerk could attend to all the duties of the office by giving only part of his time to them. But the inventive genius of the American people grew rapidly under the protection of the patent law, and in 1836 a new law was passed, creating the Patent Office with a Commissioner of Patents at its head.

The Patent Office to-day.

The Patent Office to-day is a large and busy organization. The Commissioner of Patents has a staff of nearly 1,000 persons, including examiners, clerks, translators, librarian, draftsmen, copyists, messengers, and others. The number of patents granted is increasing every year. In 1911 the one million mark was passed. Now 500 to 700 patents are issued every week, and there are always about 20,000 applications awaiting action.

How a patent may be obtained.

The Patent Office has issued a small pamphlet entitled "Rules of Practice in the United States Patent Office." In this pamphlet may be found the following paragraphs:

"A patent may be obtained by any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement thereof.

"Applications for letters patent of the United States must be made to the Commissioner of Patents. . . . A complete application comprises the first fee of $15, a petition, specifications, and oath; and drawings when required. . . . The petition, specifications, and oath must be in the English language."

If a careful examination shows an invention to be patentable,

Every application for a patent is examined by the Patent Office experts to determine whether or not it is a useful invention, and different enough from previous ones to warrant classing it as new. There may be many previous inventions that are similar. The new invention must be compared with them all before a patent is granted or denied.

An inventor often has to make a comparison of his own invention with those in the same line which were made earlier. This is often a very difficult process, for hundreds of inventions may have preceded his, as in the case of cotton-weaving machinery, steam engines, etc.

To assist him he may employ a patent attorney. These lawyers are specially trained to give expert advice in matters pertaining to inventions and patent laws, and to put applications, etc., in the approved forms.

a patent is issued.

When the Patent Office decides that an invention is patentable, the inventor must pay another fee of $20, and a patent is issued, giving him the exclusive right to make or use his invention for seventeen years or to sell his rights in it to someone else for the same period of years. No one may use his invention without his consent, which usually involves the payment of a fee, called a license or royalty fee. If anyone violates this right, the inventor may bring suit, and the courts will award him royalty and damages.

Our patent system is not perfect.

It is very often stated that the United States patent laws are the most liberal in the world. . . . This is probably true, but we must not think that the system is perfect. It is often difficult for an inventor to get what he has made on the market. Sometimes he encounters difficulties because other inventors have conflicting interests, and a long legal process is necessary with patent lawyers and much investigation of other claims. Sometimes the inventor himself has not the capital necessary to build the factory and provide the working capital. Cases are not rare in which inventors have sold their patents at a very low price to others who have made a great deal of money out of the use of the patents. . . .

The goal.

Not all these difficulties can properly be charged against our patent laws. But whatever the difficulties, it is evident that the Nation is interested in working out some method by which anyone who has ideas useful to the whole community shall be protected in his production of what he has invented. Then we must take care that these inventions shall be made immediately useful to the community as a whole.

105. The nature of competition [1]

Competition an important basis of the capitalistic system.

A third basis of the capitalistic system is competition. By competition we imply that two or more persons engage in a struggle or contest in the effort to secure a given end. The rivalry among several producers, each trying to undersell the others, the contest among

[1] From Edwin R. A. Seligman, *Principles of Economics*. Longmans, Green & Co., New York, 1921; pp. 139–141.

several buyers for a limited stock of goods, the struggle among numerous laborers for a few jobs, these are a few examples of competition in industrial life. Competition in some form touches practically every phase of business; indeed, the competitive principle occupies so dominant a position in modern industry that our industrial system is often called "the competitive system." The nature of competition is discussed by an American economist, Professor Edwin R. A. Seligman, as follows:

Competition the law of life.

Competition is in a certain sense the law of all life. Biology has made us familiar with the animal struggle for existence and has disclosed the process of natural selection, as resulting in the survival of the fittest.

Conflict.

The chief form of this conflict is between the living being and the forces of Nature, the struggle of the individual to accommodate himself to the environment, and the evolution under favorable conditions of those who survive by learning so to accommodate themselves. When Nature is niggardly and her resources do not suffice for all, the struggle with Nature is reinforced by a contest between the various groups or units to secure their share. It is here that competition emerges, — not a struggle against Nature, but a conflict of one unit with another in order to enjoy the bounty of Nature.

Early forms of competition.

It is a striking fact that the earliest form of competition is a group competition rather than an individual competition. At all events, without going back to the beginnings of life, it is reasonably certain that the first competition found among human beings . . . is the competition of one horde or pack with another in the endeavor to secure the means of subsistence. Thus from the very outset the principle of mutual aid emerges, and competition between the groups is possible only because of coöperation within the group. These early forms of coöperation are seen in the American frontier life when the neighbors come in the "log-rolling," the "raising" of the building, the "husking bee" or the "sugaring off" of the maple trees.

Changes in the form of competition.

With the development and differentiation within the group, the principle of natural selection, (that is, of competition) makes itself felt as between the members of the group; but the process is slow because the welfare of the individual is deemed to be subordinate to that of the whole. As the groups become larger and more powerful,

we notice continually higher forms of mutual aid, but we find at the same time more play given to the activity, or, in other words, to the competition, of the individual. . . . Competition in one form or another is coterminous with life itself.

Competition in the economic domain.

If competition, as a biological conception, is thus an explanation, in part at least, of progress, it becomes of even more importance when applied to the economic domain. . . . The difference between man and animals is not that man *economizes* wealth (for some animals do the same), but that he *produces* wealth. Competition in human economics, therefore, is not simply a contest to divide an existing sum, but a struggle to share in an increasing stock. The first requisite of securing an additional share is to produce more. In this struggle to dispose of the increased product to the whole body of consumers, the victory will lie with those that can create better or cheaper products. The surest method of capturing the market is to undersell one's competitor.

Competition in economics the secret of progress.

Thus competition, as a business principle, means a struggle to augment wealth through a lowering of cost. If competition in biology leads only indirectly to progress, competition in economics is the very secret of progress. Under normal conditions competition is indeed the life of trade. The individual competitor may incidently amass a fortune, but if he does so honestly . . . it can only be by conferring upon the community still greater benefits. He conquers who does best for society.

Competition in economic life, therefore, is a potent factor in the growth of capital. Working hand in hand with the principle of private property, it is the chief incentive to progress. Through it we secure the extension of the margin of utilization, the accumulation of the surplus available for human wants.

Competition the great safeguard of society.

Competition, moreover, is the great safeguard of society. It is the protection of the consumer against the high price which accompanies exorbitant profits; for it is the automatic force which reduces the gains of the inefficient and makes profits depend on low, rather than on high, price. It evokes in individuals the fundamental characteristics of energy, thrift and power; and it harmonizes to a large extent the interests of the individual and of society, by making the success of one depend primarily on what he can accomplish for the other.

106. The importance of being dependable [1]

The members of a highly specialized industrial community must be dependable.

It is a trite but significant generalization that the division of labor has turned us into a nation of specialists. Specialization means interdependence to a high degree. Interdependence in turn implies that individuals are dependable, that is, that they can be relied upon to keep their word. If a particular specialist, say an engineer, failed to do what was expected of him, it might occasion the loss of much time, property and life. When business conditions are uncertain, it sometimes happens that individuals will enter into agreements or contracts which they expect to renounce in case subsequent market developments should make it to their financial interest not to fulfill such agreements or contracts. The demoralizing effects of such an attitude are illustrated by the following extract from the New York *Times*, in which a clothing merchant of New York City, Mr. David N. Mosessohn, discusses the tricks to which retail clothing dealers may resort in a period of uncertain prices:

Business promises broken on the ground that the goods could not be used,

A certain retailer placed an order that the manufacturer would not deliver under the usual conditions regarding payment. The retailer then asked that the goods be shipped C. O. D. This was done, and when the merchandise reached the retailer he refused to accept it. A second retailer ordered three dresses from a local concern, and shortly afterward returned two of them on the ground that they could not be used. The amount involved in this case was not large, which makes the incident all the more illustrative of the steps some retailers are taking to avoid fulfilling their commercial obligations.

on the ground that the goods were not suited to the local market,

A bill of goods amounting to $137.50 was recently shipped to a retailer in a Pennsylvania town. One dress, valued at $27.50, was kept, and the remainder of the shipment was returned with the "explanation" that the styles of the other ones would never sell in the town in which the store was located. Yet all of the garments had been selected by the buyer for the store.

on the ground of late delivery, and

One retailer recently refused a shipment of goods on the ground that delivery was late. The order specified shipment in five weeks from its date, and the goods were in the store of the buyer more than

[1] From the New York *Times*, Sunday, April 30, 1922. Market section, p. 11.

a week ahead of time. This fact, however, did not stop the buyer from making a preposterous claim.

Underselling by a competing store was given by another buyer as the justification for returning several garments. A further sidelight on the ethics of certain buyers is cast by the action of one of them in shipping back two expensive dresses jammed up in a pasteboard shoe box.

on the ground of underselling.

[A dealer] recently had some dresses on hand that he was willing to take a loss on to move. Their average wholesale value was about $50. The buyer in the case selected twenty-one of the garments and, after some dickering, a price of $25 was arrived at. The goods were shipped, but payment was not forthcoming. Instead, a letter came from the buyer saying that he couldn't use the dresses unless he could have them for $21 each.

Other tricks.

One retailer, who doubtless considered himself clever, picked out a "job" of twenty-five garments that ranged in value at wholesale from $25 to $75 each. There were several high-priced dresses in the lot, which was sold by the manufacturer at an average price of $35. Not long afterward, fifteen of the dresses were returned to the seller, but each of the ten dresses that were retained had an actual value in excess of the $35 paid for it. The dresses actually worth that price, or less, were in the assortment returned.

There are several stock excuses given by retailers for returning merchandise. Among them is the time-worn plea, "Not up to sample." Probably this excuse is used more often than any other alibi on the list. A brand new use of it came to light very recently, however, when a retailer returned a "job" of dresses with the claim that they were not up to sample. Some of the other numerous claims on which returns are based is that the material is full of streaks, that the wrong kind of thread has been used, and that the fabric has been sewed on the wrong side.

Some stock excuses for returning merchandise.

Sometimes damage to the garments is alleged, when the defect is actually due to mistreatment after the merchandise has passed into the possession of the customer. In one such case that came to attention . . . recently, a large hole had been burned in the front of the dress. The customer returned it to the store for credit and the store passed it on to the manufacturer with the claim that the material fell apart. . . .

Alleged damage to garments.

The effort to check commercial "dodging."

One of the recent steps [taken by an association of sellers of dress goods] is the issuing to members [of the association] of blanks for confidential daily reports on these points. The name of the manufacturer does not appear on these blanks, but he is identified by a key number. . . . Provision is made for the insertion in the blank of the name and address of the resident buyer, if any, involved in the purchase out of which the abuse grew, as well as the date and amount of the order, the number of dresses involved, the date the goods were shipped and returned, the number of dresses returned, and their value. . . . No retailer is reported as a chronic canceller or returner on the "say so" of any single member. When we learn of his practises from half a dozen sources or so, however, we get in touch with him and try to find out the reasons for his actions. If he cannot or will not give them, or if they are unsatisfactory, the membership is informed, and the individual members then deal with the offender as their best judgment dictates. . . .

107. The business cycle [1]

Nature of the business cycle.

An important characteristic of modern industry is its tendency to move in cycles, that is to say, in alternating periods of prosperity and depression. When we say there is a "boom" we mean that business is towards the top of the wave of prosperity; when we say there is a "crisis" we mean that business is near the bottom of the trough. During some periods in our history the business cycle was quite regular, though this regularity has often been exaggerated. None the less, unmistakable repetition and some periodicity do occur. Periods of activity recur, followed by periods of depression. The symptoms of the business cycle are discussed by Professor Frank W. Taussig, as follows:

Symptoms of the cycle:

A period of activity,

During the stage of activity, new enterprises are freely launched, old ones find a ready market for their products, business men are confident and even optimistic, labor finds regular and well-paid employment. Credit is easily expanded, prices rise, rates of interest and discount tend gradually to go up.

[1] From Frank W. Taussig, *Principles of Economics*. The Macmillan Co., New York, 1921. Vol. I, pp. 390–393.

followed by a period of halt,

Toward the latter part of such a stage, there is apt to be a period of halt and uncertainty — something like a premonitory chill. Then new enterprises find unexpected obstacles, while those half launched must bid high in order to get the funds they wish. Rates of discount rise and scarcity of money is complained of.

then an overturn,

Suddenly there comes an overturn, usually precipitated by the failure of some well-known banking establishment. Thus in 1857 came the collapse in the United States of the Ohio Life Insurance and Trust Company; in 1866 in England, that of Overend, Gurney and Company, a great firm of bankers and brokers; in 1873, that of Jay Cooke and Company, a famous American banking house. In 1884 three large national banks failed in New York; in 1907 the Knickerbocker Trust Company failed in the same city, with other banking institutions dragging in its train.

followed by a monetary crisis,

Then follows the acute stage — the monetary crisis. Banks are confronted by sudden great demands; they are pressed both to enlarge their loans and to pay out their cash; business houses fail; in the worst cases, as in 1857 and 1873, even in 1907, a complete paralysis of industry sets in.

and a period of depression.

With the more or less rapid subsidence of this acute phase, the period of industrial depression begins. No new enterprises are launched, old ones contract their operations, employment is comparatively scant and uncertain. Cash accumulates in the banks, reserves are high, rates of interest and discount low, prices tend to fall.

Revival.

Then, after a few years, bottom is touched, revival sets in slowly, and the old round is repeated.

The causes of the business cycle are partly economi:.

The causes of the larger oscillations — the industrial phenomena — are to be found partly in the division of labor and the time-using or capitalistic method of production. . . . We have already noted the successive division of labor: the marshaling of different stages in the processes of production. Thence ensues an interval, often long, between the first stages of production and the final emergence of the consumable commodity. Thence comes the possibility of mistake and maladjustment, and also the possibility that the maladjustment will not be promptly ascertained. Here is one great cause of the industrial crisis — ill-adjusted production.

This cause acts most strongly when rapid changes are taking place

in the arts. Crises have appeared on the largest scale and with the widest effects during the period since the Industrial Revolution. . . . When there are heavy investments of capital in new enterprises, then the chances of error are greatest, and at the same time a course of error can be persisted in for the longest time without retribution. . . .

and partly psychological.

Here the psychological factor comes into play. A pervading spirit of optimism fills most business men in times of activity, as a spirit of pessimism does in times of depression. A few very sagacious and sober persons may indeed remain unaffected. These hold off when others press on, and venture freely when others hesitate. But they are as rare as the persons who remain rational in a mob or quiet in a cheering crowd. Most business men respond to the influences that surround them. They enter on new enterprises or enlarge old ones when all the world about them is doing likewise.

This contagion is not merely contagion; it rests on a real interdependence. Business men are chiefly buying and selling with each other. Only the retail tradesmen, and such industries (essentially retail in character) as street railways, are dealing with the final consuming public. The maker of iron and steel sells to the maker of machinery, he to the manufacturer, he to the wholesale agent or jobber, he to the retailer. Every one of these, unless possessed of almost unlimited capital or credit on his own account, necessarily depends on what others will buy of him. Whatever be his own opinion of the source or extent of ultimate demand, the direct influence on him comes from those who stand next in the long chain of apparently separate yet essentially interdependent operations. . . .

108. Effect of industrial progress upon social classes[1]

Some social effects of the Industrial Revolution.

With the development of modern industry there have come about profound changes in social institutions. In this connection, a first striking effect of the Industrial Revolution was to transfer many types of manufacture, as for example the manufacture of clothing, shoes and implements, from the home to the factory. This lessened the amount of work to be done in the home, and increased the amount of work to be done in the factory. This brings us to a second effect

[1] From F. Stuart Chapin, *An Historical Introduction to Social Economy*. The Century Co., New York, 1917; pp. 200–203.

of the Industrial Revolution, *i.e.* the transfer of numerous persons from the rural districts to the factory towns, where not only men, but often women and half-grown children as well, were drawn into mills and work-shops. A third effect of the Industrial Revolution was to reshape the lines existing between social classes. The influence of modern industry upon class distinctions is discussed by an American sociologist, Professor F. Stuart Chapin, as follows:

With the advent of the factory system, the wage-earner becomes a hired hand.

With the coming of the factory system, ownership of tools and place of work passed from the control of the laborer. He became a hired hand, a wage-earner, working with tools (machinery) provided by the capitalist in a specially constructed establishment (factory) upon material which he did not own and which his labor helped to turn into some finished article which he might never see. Thus the old personal relationship of the workman to the processes of production disappeared, and he was unable to regulate his hours, or the conditions under which his labor was carried on. It was a serious thing, this loss of personal freedom, this growing economic dependence of a large mass of laborers upon a small class of capitalists. It created a social situation which somewhat radical thinkers have with considerable justice called "wage slavery." But this consideration brings us to the study of another important effect of the factory system.

Formerly the relations between employers and employees were intimate, but

A thorough-going differentiation of the industrial classes of capital and labor was another consequence which followed the introduction of the factory system. In the days of the handicraft system in antiquity, and under the craft-gilds of the Middle Ages, the difference between employer and employee in the industrial field was not great. The master worked with his apprentices and journeymen, participating with them in the processes of production, sharing their privations and their comforts, although he possessed authority over them and paid them wages. . . .

the factory system has created a gap between these two groups.

But with the factory system came hard and fast differences between employer and employee. The ownership of materials, tools, machinery, and factory was in the hands of those outside the class of manual laborers — the employer class — while the workmen sold naught but their labor. It was but natural that, in the absence of the old intimacy of master and man in the processes of manufacture, and in the

presence of marked differentiation of function, the interests of the two should grow apart. Under this type of industrial organization, it was comparatively easy for the capitalist to appropriate nearly all the wealth produced by the labor of the mill-hands, leaving the employees a scant living share. . . .

The importance of this new development.

It is profitable to dwell at length upon the differentiation of classes and the growth of hostile class-interests which came as a consequence of the new organization of industry, for an understanding of these facts helps to explain many of the complex problems of the present day. In place of the old personal tie between employer and employee, we have a simple wage-paying-labor-giving relation. . . . To the large employer of labor, the average employee becomes a mere number. The human relation has disappeared. Large-scale production, the organization of great masses of labor and intricate machinery for enormous output, has apparently increased and enhanced the separation of the productive classes, and made inevitable a feeling of irresponsibility on the part of those in control for the lives of the manual workers.

A comparison.

Compare the system of production as it existed when the master craftsman worked in the same room and handled the same tools as his apprentice or employee, with the usual organization of the modern corporation. In the former, the relations of employer and employee were personal and direct; there were no intermediate authorities. In the latter, between the manual laborer and the ultimate owner — the stockholder — there is a whole hierarchy of officials and authorities, represented by the factory superintendent, the general manager, the president of the corporation, the executive committee of the board of directors, and the board of directors itself. How easy it is for responsibility for industrial accident, inadequate wages, or unhealthful working conditions, to be lost somewhere between the beginning and the end of this series! Thus there are structural facts inherent in the factory organization of industry which make for irresponsibility and hostile class-interests. . . .

Questions on the foregoing Readings

1. Why may we properly speak of a "capitalistic" system?
2. Describe the beginnings of private property.
3. What was probably the first property right?
4. At what period or stage did the right to sell or rent spring up?
5. When may we say that the right of property is complete?
6. What is the meaning of the word "patent"?
7. What is the constitutional basis of our patent system?
8. When was our Patent Office established?
9. Describe the process by means of which a patent may be obtained.
10. Give some examples of competition in industrial life.
11. Discuss competition from the standpoint of biology.
12. Describe some early forms of competition.
13. What is an important difference between men and animals?
14. Explain the statement that "he conquers who does best for society."
15. What is meant by saying that competition is the great safeguard of society?
16. What is the importance of being dependable?
17. Describe some ways in which retailers may attempt to evade their commercial obligations.
18. How might an association of sellers attempt to check such practices?
19. What is meant by the term "business cycle"?
20. What are the chief symptoms of the business cycle?
21. Explain the great economic cause of the industrial crisis.
22. Describe the influence of the psychological factor in the crisis.
23. Name three social effects of the Industrial Revolution.
24. Describe clearly the effect of the factory system upon the relations existing between employers and employees.
25. What is the importance of this development?

PART III—THE REFORM OF AMERICAN INDUSTRY

CHAPTER XIX

THE CHARGES AGAINST CAPITALISM

109. Lack of a plan in capitalism [1]

A serious defect of capitalism.

This chapter introduces the student to the problem of the reform of American industry by outlining the more important of the charges which have been brought against capitalism. According to those who consider capitalism highly defective, a serious defect of the present system is its planlessness, its lack of organization, its inability to control or direct itself. The details of this charge against capitalism are presented by Mr. Henry W. Macrosty, as follows:

Modern industry is essentially speculative.

Modern industry is essentially speculative in character. [It has been said,] "It is for the prospective, not for the actually existing, demand that a producer has chiefly to provide. . . . Our warehouses and shops overflow with goods that have been produced before being sold, and with a view to their being sold. They have been produced to meet the prospective demand, and to measure that accurately is not in the power of the most able and prudent man." This statement applies not only to goods for consumption, but also to goods, such as machinery, which are intended to aid production.

The attitude of the individual producer

The community is interested only in the accommodation of the whole supply to the total demand, but it is to the interest of each individual manufacturer to secure for himself as large a share of that demand as possible, without regard to the probability of there being an over-supply. To secure custom he must underbid his competitors; to make the low price profitable he must reduce his expenses of production. There is thus a permanent stimulus to the improvement of organization, and to the invention of new processes; but as soon as

[1] From Henry W. Macrosty, *Trusts and the State*. E. P. Dutton & Co., New York, 1891; pp. 103–106, 111, 117–119.

these advantages are gained they are immediately lost by competition. . . .

Competition leads to oversupply, and

[The] steady tendency to increase the productive machinery of the country necessarily intensifies competition. But if "competition is the life of trade," it is the death of business. The newcomers, equipped with the newest methods and the latest discoveries, produce more cheaply than their predecessors, and a race for life follows, in the course of which more and more goods at lower prices are thrown on the market.

to the disorganization of industry.

If the low prices stimulate fresh demand, general benefit ensues, but the rate of production can govern consumption only within narrow limits. Owing to the great capacity of modern machinery, the operatives employed by the investment of savings can consume only a very small proportion of their product. An outlet must be found either in the discovery of new markets, in countries yet to be developed, or in increased home consumption. [The former involves questions of foreign policy and international competition, and must gradually diminish in importance as a solution. As for the latter, the inequitable distribution of wealth and the permanent maladjustment of purchasing and producing power necessarily create] an incalculable disorganization of industry, and profoundly increase the innate inability of the competitive system to balance supply and demand. . . .

The evil increases with the widening of the market.

In a limited market it is possible for the producer to forecast the probable demand and to estimate the capacity of his competitors to meet it; but in proportion as the markets widen, both these necessary conditions of success, and especially the latter, become more difficult of attainment. . . .

Effect of the growing complexity of capitalism.

[The inability of the capitalist system to control its own productivity must increase with an increase in the complexity of the organization. The influence of machinery on production deserves particular attention.] Every invention causes displacement, both of capital and of labor; and while its benefits are distributed over the whole community, its costs must be borne by individual capitalists and laborers. . . . [In America] the invention of new labor-saving machines proceeds so fast that machinery becomes antiquated before it is worn out, and the workshops are in a constant state of transition. [Usually

capital suffers less than labor, because of its greater fluidity and its ability to recoup itself from the increased productivity of the inventions.] Large businesses suffer less than small, as their powers of adaptation are greater, and therefore small concerns tend to go to the wall. But loss there usually is, and one generation of producers is sometimes ruined for the benefit of posterity. . . .

Summary.

To sum up, we see that business under capitalism, working through competition, shows an inherent inability to equate supply to demand, which increases as the market widens. The savings of profits leads to . . . overproduction, fall in prices, and depression. [The depression displaces labor, and the process increases the irregularity of employment.] Reduction of profits [also] compels economies in manufacture and transport, the greater employment of improved machinery, and the invention of new processes. The increased productivity of capital causes a still greater reduction in prices and profits, and increases the tendency toward disorganization. . . .

110. Profit the aim of capitalistic production[1]

John Spargo on capitalism:

The preceding selection has developed the idea that capitalism is a haphazard affair, which is unable to control itself effectively. A second great criticism brought against the capitalistic system is that those who are in control of capitalistic production are intent upon personal profit, to the exclusion of higher aims. An American socialist, Mr. John Spargo, has developed this charge in a so-called "series of letters addressed to Jonathan Edwards, of Pittsburgh." The following is an extract from one of these "letters":

Capitalism revolves around the idea of profit.

All our system revolves around that central sun of profit-making, Jonathan. Here is a factory in which a great many people are making shoddy clothing. You can tell at a glance that it is shoddy and quite unfit for wearing. But why are the people making shoddy goods — why don't they make decent clothing, since they can do it quite as well? Why, because there is a profit for somebody in making shoddy. Here a group of men are building a house. They are making it of the poorest materials, making dingy little rooms; the building is badly constructed and it can never be other than a barracks. Why this

[1] From John Spargo, *The Common Sense of Socialism*. Charles H. Kerr & Co., Chicago, 1908; pp. 75–78.

"jerry-building"? There is no reason under the sun why poor houses should be built except that somebody hopes to make profit out of them.

Extent of the profit-making evil.

Goods are adulterated and debased, even the food of the nation is poisoned for profit. Legislatures are corrupted and courts of justice are polluted by the presence of the bribe-giver and the bribe-taker for profit. Nations are embroiled in quarrels and armies slaughter armies over questions which are always ultimately questions of profit. Here are children toiling in sweatshops, factories and mines while men are idle and seeking work. Why? Do we need the labor of the little ones in order to produce enough to maintain the life of the nation? No. But there are some people who are going to make a profit out of the labors which sap the strength of those little ones. Here are thousands of people hungry, clamoring for food and perishing for lack of it. They are willing to work, there are resources for them to work upon. . . . Then why don't they set to work? Oh, Jonathan, the torment of this monotonous answer is unbearable — because no one can make a profit out of their labor, they must be idle and starve, or drag out a miserable existence aided by the crumbs of cold charity!

What might happen if industry were free from the curse of profit-making.

If our social economy were such that we produced things for use, because they were useful and beautiful, we should go on producing with a good will until everybody had a plentiful supply. If we found ourselves producing too rapidly, faster than we could consume the things, we could easily slacken our pace. We could spend more time beautifying our cities and our homes, more time cultivating our minds and hearts. . . . But instead we produce for sale and profit. When the workers have produced more than the master class can use and they themselves buy back out of their meager wages, there is a glut in the markets of the world, unless a new market can be opened up by making war upon some defenseless, undeveloped nation.

What happens when there is a glut in the market.

When there is a glut in the market, Jonathan, you know what happens. Shops and factories are shut down, the number of workers employed is reduced, the army of the unemployed grows and there is a rise in the tide of poverty and misery. Yet why should it be so? Why, simply because there is a superabundance of wealth, should people be made poorer? Why should little children go without shoes just because there are loads of shoes stacked away in stores and

warehouses? Why should people go without clothing simply because the warehouses are bursting with clothes? The answer is that these things must be so because we produce for profit instead of for use. All these stores of wealth belong to the class of profit-takers, the capitalist class, and they must sell and make profit.

So you see, friend Jonathan, so long as this system lasts, people must have too little because they have produced too much. So long as this system lasts, there must be periods when we say that society cannot afford to have men and women work to maintain themselves decently! But under any sane system, it will surely be considered the maddest kind of folly to keep men in idleness while saying that it does not pay to keep them working. Is there any more expensive way of keeping either an ass or a man than in idleness?

The thirst for profit is the root of evil.

The root of evil, the taproot from which the evils of modern society develop, is the profit idea. Life is subordinated to the making of profit. If it were only possible to embody that idea in human shape, what a monster ogre it would be! And how we should arraign it at the bar of human reason! Should we not call up images of the millions of babes who have been needlessly and wantonly slaughtered by the Monster Idea; the images of all the maimed and wounded and killed in the wars for markets; the millions of others who have been bruised and broken in the industrial arena to secure somebody's profit, because it was too expensive to guard life and limb; the numberless victims of adulterated food and drink, of cheap tenements and shoddy clothes? Should we not call up the wretched women of our streets; the bribers and the vendors of privilege? We should surely parade in pitiable procession the dwarfed and stunted bodies of the millions born to hardship and suffering, but we could not, alas! parade the dwarfed and stunted souls, the sordid spirits for which the Monster Idea is responsible. . . .

111. Monopoly in modern industry[1]

A third important charge against the capitalistic system is that it permits, and even encourages, the development of monopoly. By monopoly we mean that the control over the supply of a good is

[1] From the Federal Trade Commission, *Report on the Meat-Packing Industry*. Washington, 1920. Part IV, pp. 13, 15, 19, 21.

sufficiently concentrated that one individual, or a group of individuals acting in concert, tends to be able to dictate the conditions of sale and price. Though some opponents of capitalism are prone to exaggerate the tendency toward monopoly, it is unquestioned that it may easily develop under capitalism. A few years ago, for example, the Federal Trade Commission reported that a small group of meat-packers had so extended their control over food products unrelated to meat-packing that a dangerous monopoly of food stuffs was threatened. The following is an extract from the 1920 report of the Commission:

The tendency toward monopoly under capitalism.

The meat packer originally confined his activities to the slaughter of live stock and the sale of meat and animal products. Gradually these activities widened to include both the fabrication of the animal products into by-products and the sale of these by-products. With the development of the refrigerator car and of cold storage came the packer's branch house, and the packer became the competitor of his one-time customer, the wholesaler, in both main products and by-products. [Later the packer became a dangerous] competitor of the manufacturer of such food and other specialties as compete with or substitute for his meat products and by-products.

Widening circle of the meat packer's activities.

Growing concentration of the packing industry into the hands of the five larger packing concerns, each having its principal office at Chicago, to wit, Swift & Co., Armour & Co., Morris & Co., Wilson & Co., Inc., and The Cudahy Packing Co., marks historically its development from this point. Parallel with the growth of concentration runs the exercise of increasing monopolistic control over meat and its by-products, and a rapid expansion into the foods unrelated to the packing industry. . . .

"The Big Five."

The Commission's investigation of the meat industry and of perishable, canned, and packaged foods has developed that the large packers are rapidly securing a strong position in the production of many, and in the distribution of nearly all kinds of foodstuffs. This expanding movement is at present perhaps more marked in the direction of the manufacture of food specialties. It has already gone far in the distribution of most foods. . . .

Variety of articles handled.

These packers have entered the wholesale grocery trade, and in practically all the more important centers of distribution they bid

The packers enter the wholesale grocery, provision, and produce trade.

fair to dominate a field which a few years ago was almost exclusively occupied by the independent provision jobber and wholesale grocer. With the exception of sugar and flour (the profits on the marketing of which are, without the control of their supply, relatively small and the control of which by the packers has not yet been secured), and with the exception of fresh fruits and vegetables (into the marketing of which the packers have never ventured far), the five larger packers are now large distributors of almost all the commodities originally handled exclusively by the regular wholesale grocery, provision, and produce trade. These include dressed poultry, eggs, butter, cheese, condensed and evaporated milk, butter and lard substitutes, dried fruits, rice, coffee, breakfast and other packaged food, jellies, pickles, and canned fruits, vegetables, and fish. . . .

Extent of packer control.

The proportion of the trade in [these and numerous other commodities] handled by the five larger packers will vary with the commodity, the locality, and the dealer whose business is being absorbed. Owing to the maze and secrecy of the packer's method of conducting much of his business, exact statistics on many of these commodities are not available. . . . Many companies manufacturing or handling these commodities are controlled by packer interests, no hint of which is disclosed by the names under which they operate, and even a thorough-going examination may fail to uncover the packer connection in every case. . . .

Advantages enjoyed by the packers.

That the packers have extraordinary buying and marketing power . . . [is pointed out in a later part of the Commission's report.] It is there shown that the packers have, through their more or less monopolistic business of slaughtering, secured nation-wide buying and selling outlets, a constant supply of funds at a lower rate of interest than is open to their competitors, preferred transportation services, and, in some cases, lower transportation rates for their non-meat lines, and a control, direct or indirect, of 44.8 per cent of the total cold storage space of the country; that these advantages are being made use of in establishing themselves in the business of handling groceries and produce; and that their claim of superior efficiency in merchandising these commodities under equality of privilege and opportunity has never been established.

Numerous complaints of questionable competitive practices on the

part of the five larger packers in the production and handling of these unrelated foods are presented. In the buying of produce these practices appear most often as local-price discriminations, price agreements, manipulation of prices through operations on produce boards, division of buying territory, and operating under bogus names. In the handling of produce and groceries in wholesale receiving and distributing centers questionable competitive practices complained of run to forcing full packer lines on retailers, eliminating wholesale dealers by securing control of their supplies or outlets, misbranding, selling short weight, operating under trade and bogus independent names, manipulating prices on boards of trade, local price discrimination, and speculating in food commodities. . . .

Charges against the packers.

112. Capitalism oppresses the laborer[1]

A fourth important charge against the capitalistic system is that it has added to the wealth of the world at the expense of the laboring classes. This claim is advanced, not only by socialists, but, very often, by non-socialists as well. The *Pittsburgh Survey* affords a good example of the effects of industry upon the workers. A number of years ago a corps of investigators made a thorough investigation of industrial conditions in the city of Pittsburgh, Penn. In this typical industrial city they found conditions sufficiently bad to constitute a serious indictment of modern industry. At the close of the field work in 1908 the investigators summed up the results of the *Pittsburgh Survey* as to the conditions of life and labor among the wage-earners of the American steel district. According to Dr. Edward T. Devine, one of America's leading social workers, the following concitions were found:

A survey of industrial conditions in the city of Pittsburgh revealed

1. An altogether incredible amount of overwork by everybody, reaching its extreme in the twelve-hour shift for seven days in the week in the steel mills and the railway switchyards.

overwork,

2. Low wages for the great majority of the laborers employed by the mills, not lower than in other large cities, but low compared with prices, — so low as to be inadequate to the maintenance of a normal

low wages,

[1] From Edward T. Devine, *Pittsburgh the Year of the Survey*. Russell Sage Foundation, New York, 1914. Volume v of the *Pittsburgh Survey*, pp. 3–4.

American standard of living; wages adjusted to the single man in the lodging house, not to the responsible head of a family.

(especially for women),

3. Still lower wages for women, who receive, for example in one of the metal trades, in which the proportion of women is great enough to be menacing, one-half as much as unorganized men in the same shops and one-third as much as the men in the union.

absentee capitalism,

4. An absentee capitalism, with bad effects strikingly analogous to those of absentee landlordism, of which also Pittsburgh furnishes noteworthy examples.

a serious immigrant evil,

5. A continuous inflow of immigrants with low standards, attracted by a wage which is high by the standards of southeastern Europe, and which yields a net pecuniary advantage because of abnormally low expenditures for food and shelter and inadequate provision for the contingencies of sickness, accident, and death.

disintegrating family life,

6. The destruction of family life, not in any imaginary or mystical sense, but by the demands of the day's work, and by the very demonstrable and material method of typhoid fever and industrial accidents; both preventable, but costing in single years in Pittsburgh considerably more than a thousand lives, and irretrievably shattering nearly as many homes.

archaic social institutions,

7. Archaic social institutions, such as the aldermanic court, the ward school district, the family garbage disposal, and the unregenerate charitable institution, still surviving after the conditions to which they were adapted have disappeared.

and a striking contrast between prosperity and misery.

8. The contrast, — which does not become blurred by familiarity with detail, but on the contrary becomes more vivid as the outlines are filled in, — the contrast between the prosperity on the one hand of the most prosperous of all the communities of our western civilization, with its vast natural resources, the generous fostering of government, the human energy, the technical development, the gigantic tonnage of the mines and mills, the enormous capital of which the bank balances afford an indication; and, on the other hand, the neglect of life, of health, of physical vigor, even of the industrial efficiency of the individual.

Conclusion.

Certainly no community before in America or Europe has ever had such a surplus, and never before has a great community applied what it had so meagerly to the rational purposes of human life. Not by

gifts of libraries, galleries, technical schools, and parks, but by the cessation of toil one day in seven and sixteen hours in the twenty-four, by the increase in wages, by the sparing of lives, by the prevention of accidents, and by raising the standards of domestic life, should the surplus come back to the people of the community in which it was created.

113. The inequality of wealth[1]

The growth of capitalism has been accompanied by a widening gap between rich and poor.

Intimately connected with the foregoing charges against the capitalistic system is the complaint that capitalism permits and encourages an unequal distribution of wealth. A few people have a great deal of wealth, we are told again and again, but the majority have very little. Of course, some degree of inequality must have existed ever since men began to amass wealth, but it is under modern industrial conditions that the evil has attracted greatest attention. The precise relation of modern industry to the inequality of wealth is hotly disputed, but it is undeniable that the development of capitalism has been accompanied by a widening gap between rich and poor. In the following passage Professor Frank W. Taussig has attempted to summarize this important, but difficult subject:

Questions to be answered.

The overshadowing fact in the distribution of property and income is inequality. How great is the inequality, and what are its causes?

Lack of data.

In view of the enormous interest of this topic, the meagerness of our information is surprising. Statistics based on income tax returns supply data that may be considered accurate; but they exist for a few countries only. . . . For most countries, including the United States, we have no precise information whatever.

Distribution has a form like that of an inverted peg top.

Nevertheless, familiar observation, supported and supplemented by such figures as we have, suffices not only to assure us of the fact of inequality, but to show its general range and character. We know that the number of the rich is very small; that the number of persons who are well-to-do and comfortable, though considerably larger, is still small; and that the persons with slender incomes are the most numerous of all. With only one exception of importance . . . distribution, both of wealth and income, has a form roughly pyramidal.

[1] From Frank W. Taussig, *Principles of Economics.* The Macmillan Co., 1915. Vol. II, pp. 238, 246–248.

To put the analogy more carefully, its form is like that of an inverted peg top, — the lowest range small, then a very large extension, and thereafter steady shrinkage as the highest point is approached. . . .

Such are the broad facts as to inequality. How are they to be explained? . . .

The two causes of inequality:

The causes of inequality are reducible to two, — inborn differences in gifts, and the maintenance of acquired advantages through environment and through the inheritance of property. The origin of inequality is to be found in the unequal endowments of men; its perpetuation in the influence of the inheritance both of property and opportunity, and also in the continued influence of native ability transmitted from ancestor to descendant.

(1) Inborn differences in gifts, and

No doubt at the outset all differences arose from the inborn superiority of some men over others. The savage chief excels his fellows in strength and in cunning. Throughout history the strong and able have come to the fore. They continue to do so in the peaceful rivalry of civilized communities. In our present society, the differences in wages — that is, in the incomes from all sorts of labor — are the results, in large degree at least, of differences in endowments. . . .

(2) the maintenance of acquired advantages.

But at a very early stage in the development of society, this original cause of difference is modified, often thrust aside, by the perpetuation of established advantages. . . . In the supposedly free and competitive society of modern times advantage still tends to maintain itself. It does so in two ways, — through the influence of environment and opportunity, and through the inheritance of property. Environment and opportunity have already been considered. . . .

Importance of inheritance.

More important, however, is the direct inheritance of property, Its influence is enormous. Obviously, this alone explains the perpetuation of "funded" incomes, — those derived from capital, land, income-yielding property of all sorts, — and so explains the great continuing gulf between the haves and the have-nots. It serves also to strengthen all the lines of social stratification, and to reinforce the influences of custom and habit. Persons who inherit property inherit also opportunity. They have a better start, a more stimulating environment, a higher ambition. They are likely to secure higher incomes, and to preserve a higher standard of living by late marriages and few offspring. . . .

An example: the money-making business man.

Nothing illustrates so fully the combined influence of inborn gifts, of property inheritance, of perpetuated environment, as the position of the person dominant in modern society, — the money-making business man. In the first stages of any individual business man's career, the possession of means counts for much. After the initial stage, native ability tells more and more. By whatever ways he gets his start, the leader of industry prospers and accumulates; and, as he accumulates, is again favored more and more by large possessions. When he dies, he leaves a trail of descendants, who perhaps inherit ability and almost certainly inherit property. With property they inherit a new environment and new opportunities. It may indeed happen that the property will be dissipated through lack of thrift or judgment, or subdivided among heirs into minute portions. But neither of these results is probable; and even if they occur, the descendants have ambitions and surroundings very different from those of the poorer class from which the ancestor may have sprung. In every way inequalities, even though they arise at the outset without favor, tend to be perpetuated by inheritance and environment.

114. The defects of capitalism: a summary[1]

The socialist is the most comprehensive exponent of the defects of capitalism.

The foregoing five selections indicate the broad outlines of some of the more important charges which are brought against the capitalistic system. These charges are advanced by various types of reformers, but by far the most comprehensive and thorough-going of the attacks upon capitalism have been made by the socialists. In the following selection, an English socialist, Mr. J. Ramsay MacDonald, summarizes the socialist's case against capitalism:

A summary:

We are now in a position to summarize the criticism which socialism passes on the existing order of things:

The rise of capitalism

[Capitalism] is a phase in the evolution of industrial organization, and is not its final form. It arose when nations were sufficiently established to make national and international markets possible, and it created classes and interests which separated themselves from the rest of the community, and which proceeded to buttress themselves behind economic monopolies, social privileges, political power. . . .

[1] From J. Ramsay MacDonald, *The Socialist Movement*. Henry Holt & Co., London, 1911; pp. 94–98.

and its evil effects.

The new power lost sight of social responsibilities and social coherence. The interests of the individualist capitalist, of the class of capitalists, of the property owners, were put first, and those of the community as a whole were subordinated. It was hoped, but for no well-considered reason, that by the individual capitalist pursuing his own interest national well-being would be served. This error soon reaped its harvest of misery, when women and children were dragged into the factories late in the eighteenth and early in the nineteenth centuries, when people were gathered into foul industrial towns, and when only human endurance limited the length of the working day. . . .

Capitalism highly productive,

The system certainly solved the problem of production. Under its whips and in search of its prizes, mechanical invention proceeded apace, labor was organized and its efficiency multiplied ten, twenty, an hundredfold. . . .

but unable to effect a fair distribution of wealth.

As time went on, however, it was seen that this wonderful system of production was quite unable to devise any mechanism of distribution which could relate rewards to deserts. Distribution was left to the stress and uncertainty of competition and the struggle of economic advantages. The law of the survival of the fittest was allowed to have absolute sway, under circumstances which deprived it of moral value. The result was that national wealth was heaped up at one end over a comparatively small number of people, and lay thinned out at the other end over great masses of the population. At one end people had too much and could not spend it profitably; at the other end they had too little and never gained that mastery of things which is preliminary to well-ordered life. . . .

Some improvement is effected, but not enough to satisfy the socialist,

Then conscious effort to rectify the chaos began to show itself. The national will protected the national interests through factory and labor legislation, and at the same time the chaos within the system was being modified by the life of the system itself. Competition worked itself out in certain directions, and coöperation in the form of trusts came to take its place, as Nature turns to hide up the traces of war in a country that has been fought over. This new organization is more economical and may steady to some extent the demand for labor, but it means that economic power is being placed in the hands of a few. That is too dangerous in the eyes of the socialist. Its operation is too uncertain. From his very nature the monopolist is an

exploiter. . . . Competition solves its own problems and leaves those of monopoly in their place.

who points out the persistence of numerous evils.

Surveying the same field with an eye on the moral fruits which it has borne, the socialist once more discovers weeds in plenty. The familiar methods of adulteration and of all forms of sharp dealing, both with work people and with customers, pass before his eyes in disquieting masses. Honesty on this field is not the best policy. Materialist motives predominate. Birth and honor bow to wealth. Wealth can do anything in "good" society to-day — even to the purchase of wives as in a slave market. A person may be vulgar, may be uncultured, may be coarse and altogether unpleasing in mind and manner but, if he has money, the doors of honor are thrown open to him, the places of honor are reserved for his occupation.

Capitalism encourages false standards and low ideals.

The struggle for life carried on under the conditions of [capitalism] means the survival of sharp wits and acquisitive qualities. The pushful energy which brings ledger successes survives as the "fittest" under [capitalism]. Capitalism has created a rough and ill-working mechanism of industry and a low standard of value based upon nothing but industrial considerations, and it has done its best to hand over both public and private values to be measured by this standard and to be produced by this mechanism. . . .

Questions on the foregoing Readings

1. Explain what is meant by the statement that "modern industry is essentially speculative in character."
2. How does the interest of the individual manufacturer differ from that of the community?
3. How does competition lead to over-supply?
4. What is the effect of the widening of the market upon the balancing of demand and supply?
5. What is the effect of the growing complexity of the industrial mechanism?
6. Who is John Spargo?
7. What, according to Mr. Spargo, is the central sun around which the industrial system revolves?
8. Describe the extent of the profit-making evil.
9. What happens when there is a glut in the market?
10. What is the meaning of the term "monopoly"?
11. Describe the widening circle of the meat packer's activities.
12. What is the meaning of the term "The Big Five"?

13. Comment upon the variety of the commodities handled by the packers.
14. Describe the entry of the packers into the wholesale grocery, provision, and produce trade.
15. Why did the Federal Trade Commission find it difficult to ascertain the extent of packer control?
16. What advantages are enjoyed by the packers in buying and marketing?
17. Enumerate some of the charges brought against the packers.
18. What was the *Pittsburgh Survey?*
19. Enumerate some of the conditions revealed by the *Survey*.
20. What does Professor Taussig mean by saying that the distribution of wealth has a form like that of an inverted peg top?
21. What are the two causes of inequality?
22. What is the relation of inequality to inheritance?
23. What type of reformer has drawn up the most comprehensive attack upon capitalism?
24. Describe the rise of capitalism, and the resulting evils.
25. What is the defect of the distribution of wealth under capitalism?
26. What evils, according to the socialist, persist despite remedial legislation?

CHAPTER XX

PLANS TO IMPROVE THE WAGES SYSTEM

115. Welfare work: an example[1]

The meaning of welfare work.

The term "welfare work" may be used in a wide sense to include all of those services which an employer may render to his work people over and above the payment of wages. In the following paragraphs Professor John R. Commons describes the way in which Miss Gertrude Beeks of Chicago introduced and developed welfare work in the International Harvester Company many years ago:

Reduction of excessive working hours in the case of the International Harvester Company.

Miss Beeks has acted on the principle that welfare work should extend very cautiously, if at all, beyond what is plainly necessary for the health and comfort of the people while at work. One of the first complaints that she took up . . . was that of long hours of work. She found that the employees were regularly working two and three hours beyond the normal ten each day, and so responsive were the management when she showed them the injury of over-work, that they succeeded in practically abolishing it. The improvement in the health, energy, and spirits of the workers, together with some improvements in management, produced as large an output in the shorter work day as had been produced in the longer work day. . . . Reduction of excessive working hours has not always been considered a feature of betterment work, but with Miss Beeks it is the foundation of such work. . . .

Making an establishment into a model factory.

But Miss Beeks did not limit herself to the bare necessities. She made the . . . establishment, indeed, a model factory. She naturally began with the women and girls in the twine mill, numbering five hundred, and from them gradually extended her work to the six thousand men in the other departments. One of the early things she did for these girls was to fit up their dressing-room with a good supply of

[1] From John R. Commons, "Welfare Work in a Great Industrial Plant." *Review of Reviews*, Vol. XXVIII, July, 1903; pp. 80–81.

mirrors. Owing to the heavy dust about the machines, the girls are compelled to change their clothing before going to work, and to wear a close-fitting cap which entirely hides the hair. Miss Beeks' feminine sense hit upon mirrors as an essential, and this was certainly a mark of insight, for it is said to have endeared her to all of the girls.

She then induced the company to experiment with a system of ventilation to remove the dust, which is very injurious, and which was ultimately removed entirely. She established a luncheon room and placed it in charge of a committee of the employees coöperating with the company. Here a good meal can be had for twelve cents. Rest rooms were provided. Toilet rooms, hot water, towels and soap, lockers for clothing, a dancing platform, pianos, are among the conveniences and attractions. It is worth observing that the girls make use of the dancing platform and piano every day at noon-time.

Miss Beeks organized the Sisal Club, named after the fiber from which the binding twine is made, and made this club a center of amusement. An opera company was organized, trained by an employee, and the four performances, given solely by factory talent, were praised by eight thousand employees as superior to anything on the stage. A stupendous field day was inaugurated, where twelve thousand employees and friends gathered for outdoor athletics. . . .

The key to the work of Miss Beeks.

The key to her work has been friendly association with the employees and their families in order to find out what they needed, and not to force upon them conveniences which they did not appreciate. A large part of her time was spent in visiting their homes and caring for them in sickness and accidents. A corps of trained nurses and two physicians were added to the staff.

Why some attempts at welfare work have failed.

The failures which have been made in this kind of work may be ascribed partly to the sentimentalism which prompted their introduction, and which therefore possessed no criterion by which the range of work could be limited to that which was needed and appreciated. Great tact also is necessary in introducing new features, especially in securing the coöperation of foremen and superintendents, who generally will be opposed to any interference with their discipline, or with anything that seems to forebode the arousing of dissatisfaction on the part of the work people. Some employers feel that the work has proved a failure because it has not been appreciated;

but when this is the case, it is usually because there was a mistake in the method of introduction, or because the work was carried too far on sentimental lines without due proportionate attention to wages and hours. Neither should the employer expect that by means of betterment work he will be able to prevent the organization of employees or the demands for increased pay and shorter hours. . . . Industrial betterment is not the solution of the labor question nor the substitute for labor organization. It is part of the labor movement for better treatment, better conditions, and greater opportunities. That it is not a fad, and not a passing sentiment, has been thoroughly demonstrated in the work of Miss Beeks. . . .

116. Some aspects of piece work[1]

Time wages and piece work wages.

In most cases workmen are paid on the basis of the time put in, that is to say, a workman receives so much per day, week, or month. In many cases, however, workmen are paid on the basis of units of product, for instance, a workman receives a definite sum per box of fruit packed or ton of coal mined. Some of the advantages and disadvantages of piece work wages are discussed in the following selection by Mr. N. I. Stone, Labor Manager for the Hickey-Freeman Company, Rochester, New York:

Advantages of piece work.

The simplest way of basing compensation on output is through piece work. The compensation of the worker is strictly proportional to his exertions. The more he produces, the greater the contents of his pay envelope. With the piece rate once determined, the system seems to work fairly to both sides. The interests of both employer and employee seem to be identical, since the more the worker earns, the greater the production and, therefore, the lower the overhead expense of the plant per unit of product.

Objections to piece work wages:

rate cutting,

Unfortunately, the same cannot be said of the rate itself. There is an obvious conflict of interests in determining the rate, the old game of the seller (the worker) trying to get the highest possible price and the buyer (the employer) seeking to buy cheap, reasserting itself in this case. If this were the only drawback of the piece rate system,

[1] From N. I. Stone, *Wages, Hours, and Individual Output.* Annals of the American Academy of Political and Social Science, Philadelphia, 1919; Vol. LXXXV, pp. 130–133.

it would be eliminated, at least, upon the determination of the rate. Unfortunately, industrial practice has intensified the evil a thousandfold and has caused piece workers to restrict output with no less determination than that shown by time workers. This practice consists of cutting down piece rates when the workers earn "too much" money. . . . Much of the rate cutting is due to cupidity or short-sightedness on the part of employers who do not realize that for every dollar in wages which they thus save they lose infinitely more in less efficiency caused by the curtailment of output by workers to which they are forced to resort in self-defense. . . .

loss of earnings through inefficiency of management,

Another strong objection to piece work raised by workmen is based on the loss of earnings which they incur through inefficiency of management or other losses beyond their control. Only highly efficient plants — and their number is as yet small — know how to maintain an even flow of work throughout the plant. The balance of work between the different departments of the plant is rarely maintained on an even keel for any length of time. As a result, workers in one department may be idle for hours, or considerable parts of the day, and sometimes even for days, while other departments have more work than they can handle. Poor control of the stock room results in the lack of one or more items of material being discovered at the last moment, when it is too late to prevent interruption of work. All these breaks in production fall with their full weight upon the worker, depriving him of earnings through no fault of his own, while his time is at the call and disposal of his employer.

speeding,

A third objection to piece work raised by workmen, particularly by organized labor, is the excessive speeding which the system encourages to the great detriment of the workers' health, frequently causing physical breakdown in the prime of life.

jealousy and favoritism, and

The desire to earn as much as possible causes a good deal of racing among the workmen, provoking jealousies among them which foremen know how to utilize to prevent solidarity among the workers, by making favorites of some and discriminating against others. Union men are often given less desirable work than those who do not belong to the union; frequently they are made to wait longer for their work in the intervals between one job and another.

An objection to piece work which comes from employers is the ten-

dency on the part of the workers to sacrifice quality for quantity. Insistence on the part of the management on standards of quality leads to friction with the help.

sacrifice of quality.

Such are the objections to piece work which have caused the industrial engineer to seek other means of compensation for labor. With all its drawbacks, however, the piece-rate system has the great advantage over the straight time-work in that it gives the workman a direct interest in his output, since his compensation rises automatically in a direct ratio to his effort and skill. From the point of view of the employer the piece-work system offers the great advantage of making wages strictly dependent upon output and automatically stopping wage leaks which are so common under the straight time-work system. Any substitute for piece work must, therefore, retain its advantages while eliminating its disadvantages. . . .

Conclusion.

117. Scientific management[1]

In the preceding selection, Mr. Stone pointed out a number of objections to piece-work wages, and concluded that any substitute for this system must retain its advantages while eliminating its disadvantages. A number of leading authorities on labor problems at present believe that such a substitute is offered by scientific management. A favorable view of this interesting plan is presented below by Mr. Dwight T. Farnham:

The promise of scientific management.

Scientific management combines, with the present best principles of management, among others, the following special features: —

The essential elements of scientific management.

1. Analytical time study, under which
   - (*a*) The best practice is timed, one motion at a time, and this is divided into necessary motions (which are improved upon), unnecessary motions (which are eliminated), and delays (which are analyzed and as far as possible eliminated).
2. Written instruction card, which combines
   - (*a*) The results of analytical time study,
   - (*b*) The knowledge and experience of the men, foremen, superintendents, etc.,

[1] From Dwight T. Farnham, *Brief for Scientific Management.* St. Louis, Mo., 1919.

(*c*) The knowledge and science of the industrial engineer, mechanical engineering, the laws of heavy and light labor, of fatigue, of mental and physical fitness to tasks, etc.,

(*d*) And establishes the correct time for each motion.

3. Bonus for workmen. . . .
4. Bonus for foremen. . . .
4. Centralization and specialization in all activities, comprising especially

(*a*) Despatching — Instead of sending each part along in a haphazard fashion, dependent upon the care of each workman or foreman, the matter of the movement of parts is concentrated in one department, or made the business of one man, who makes the movement of each part and its arrival on time his special study and is held responsible. This work covers also the arrival of material and supplies at the proper time.

(*b*) Routing — The shortest and most economical path of each part through the shop is studied and established and the responsibility for its following this route is fixed.

(*c*) Functional foremanship — Instead of each boss and foreman trying to be a "jack of all trades" each one specializes in some one portion of the work — covering more men but less subjects.

(*d*) Staff investigation — Certain problems requiring special study and development are turned over to one man or group of men. This would include a study of the best adapted tool for the work, the creation of new machines, the determination of the most economical material and the methods of rendering repair work permanent. Standards are established and the line organization is enabled to do each sort of work in the best way. The industrial engineer assists in this work and the results become a record of the company.

Over 50,000 workmen in the United States are now employed under this system and they are receiving from 30 to 100% higher

daily wages than are paid to men of similar caliber with whom they are surrounded, while companies employing them are more prosperous than ever before. The output per man and per machine has been doubled and there has never been a strike among the men working under the system.

Some results of scientific management.

A few examples of the application of the principle of scientific management to various industries follow: —

1 Pig iron handling: Unloading from box cars — Wages increased 69% ($ .16 to $ .27 per hour); output increased 500% (2 tons per hour to 10 tons); costs cut 66% (from $ .08 to $ .27 per ton). In Bethlehem Steel Co.'s yards, various movements — Wages increased 60% ($1.15 to $1.85 per day); output, 300% (from 12 tons to 48 tons per day); cost cut 60% (from $ .097 to $ .038 per ton).

2 Shoveling: Various materials in Bethlehem Steel Co.'s yards — Wages increased 60% ($1.15 to $1.88 per day); cost per ton reduced 54% (from $ .073 to $ .033). The saving the first year amounted to $36,000, the second year to $80,000.

3 Iron moulding: Wages increased 75% ($3.28 to $5.74 per man); output increased 265% (time cut from 53 to 20 minutes per piece); and costs cut 53% ($1.17 to $ .54 per piece).

4 Bricklaying: Union men averaged 350 brick per hour instead of 120, with less fatigue, making five motions instead of 18.

5 Riveting: Crew drove 731 rivets per day on structural work instead of 432 per day — an increase of 69%.

6 Cleaning boilers: Cost cut from $62.00 to $11.00 per set and work done more easily and more thoroughly.

7 Sulphate pulp mills: Output doubled, cost reduced.

8 Tobacco pouch factory: Girls averaged 550 per day instead of 275, an increase of 100%.

9 Bicycle ball factory: Wages increased 90%, hours shortened from 10½ to 8½, quality improved, cost reduced.

10 Pillow case factory: Wages increased 40%; production increased 33%; cost cut in half; imperfections per case cut from 47 to 2.

11 Cloth mill: Wages increased 40%; production increased 80%; cost reduced 60%; quality improved.

12 Foundry: Wages increased over 60% and cost cut 66% on big cylinder bushings.

13 Machine shop: Wages increased 17%; output increased 41%; cost reduced 60%.

118. Extent of profit sharing in the United States[1]

In 1916 an investigation by the U. S. Department of Labor revealed

The profit-sharing plan has attracted a great deal of attention in recent years, and has proved sufficiently attractive to induce many employers to give it a trial. Statistics on the subject are few, but it is likely that at one time or another several hundreds of American employers have made a serious attempt to apply some form of profit sharing. Several of these attempts have received a great deal of publicity, and for this reason some people have concluded that profit sharing in American industry is fairly widespread. As a matter of fact, the proportion of industrial establishments practicing profit sharing at any one time is very small. In 1916 the United States Department of Labor undertook a comprehensive survey of profit sharing in this country. In that year only sixty establishments had profit-sharing systems. The following is the complete list of profit-sharing establishments in the United States in 1916, as compiled by the Department of Labor:

sixty profit-sharing establishments in the United States.

ESTABLISHMENTS WITH PROFIT-SHARING PLANS IN OPERATION IN 1916

Name of Firm	*City and State*	*Industry or Business*	*Year plan was established*
Am. Light & Traction Co.	New York, N. Y.	Public utility	1899
Am. Manufacturing Concern	Falconer, N. Y.	Manufacturing wood novelties, toys, desks	1915
Baker Manufacturing Co.	Evansville, Wis.	Manufacturing windmills and gasoline engines	1859
Ballard & Ballard Co.	Louisville, Ky.	Manufacturing — Flour milling	1886
Ballinger & Perrot	Philadelphia, Pa.	Architects and contractors	1911
Bartley, R. A.	Toledo, Ohio	Mercantile	1904
Benoit System	Bangor, Me.	do	1914
Blood, J. B., Co.	Lynn, Mass.	do	1909
Boston Consolidated Gas Co.	Boston, Mass.	Public utility	1906
Bourne Mills	Fall River, Mass.	Manufacturing cotton cloth	1889
Burritt, A. W.	Bridgeport, Conn.	Manufacturing — Lumber mill	1900
Cabot, Samuel	Boston, Mass.	Manufacturing chemist	1887
Carolina Savings Bank	Charleston, S. C.	Banking	1897
Chatfield Milling & Grain Co.	Bay City, Mich.	Manufacturing — Flour millers, grain dealers, etc.	1906
Cleveland Twist & Drill Co.	Cleveland, Ohio	Manufacturing drills, etc.	1915
Davis, W. B.	do	Mercantile	1914
Eastman Kodak Co.	Rochester, N. Y.	Manufacturing photographic appliances and supplies	1911

[1] From the United States Department of Labor, Bureau of Labor Statistics, *Profit Sharing in the United States*, Washington, 1917; p. 10.

ESTABLISHMENTS WITH PROFIT-SHARING PLANS IN OPERATION IN 1916—*Continued*

Name of Firm	*City and State*	*Industry or Business*	*Year plan was established*
Edison Electric Illuminating Co.	Brooklyn, N. Y.	Public utility	1910
Elliman, D. L., & Co.	New York, N. Y.	Real estate brokers	1915
Empire Trust Co.	do	Banking	1914
Farr Alpaca Co.	Holyoke, Mass.	Manufacturing cotton cloth	1914
Garfield Savings Bank	Cleveland, Ohio	Banking	1915
Graves, H. B., & Co.	Rochester, N. Y.	Mercantile	1901
Guardian Savings & Trust Co.	Cleveland, Ohio	Banking	1913
Harris Trust & Savings Bank	Chicago, Ill.	do	1915
Hathaway, C. F., & Sons	Cambridge, Mass.	Wholesale baking	1912
Heebner & Sons	Lansdale, Pa.	Manufacturing agricultural machinery	1912
Hollenberg Music Co.	Little Rock, Ark.	Mercantile	1909
Ivey, J. B., & Co.	Charlotte, N. C.	do	1909
Krauter, C. H.	Youngstown, Ohio	do	1906
Kutztown Foundry & Machine Co.	Kutztown, Pa.	Manufacturing — Foundry and machine works	1914
Lever Bros. (Ltd.)	Cambridge, Mass.	Manufacturing — Soap	1909
Liberty Trust Co.	Boston, Mass.	Banking	1910
Maxwell, A. L., Co.	Lawrenceville, Ill.	Mercantile	1915
Milmore Corporation, The	South Bend, Ind.	Manufacturing chemists	1915
Miner-Hillard Milling Co.	Wilkes-Barre, Pa.	Manufacturing — Milling, flour, meal, grits, etc.	1906
Minneapolis Bedding Co.	Minneapolis, Minn.	Manufacturing beds and bedding	1915
Nelson, N. O., Mfg. Co.	St. Louis, Mo.	Manufacturing plumbers' and steamfitters' supplies.	1886
New Haven Gas Light Co.	New Haven, Conn.	Public utility	1907
Newport Daily News	Newport, R. I.	Newspaper publishing	1901
Noyes, Chas. F., Co.	New York, N. Y.	Real estate brokers	1911
Parks, G. M., Co.	Fitchburg, Mass.	Contractors and builders	1915
Patton Paint Co.	Milwaukee, Wis.	Manufacturing paints	1910
Peninsular Paper Co.	Ypsilanti, Mich.	Manufacturing cover papers	1914
Plymouth Cordage Co.	Plymouth, Mass.	Manufacturing cordage	1913
Record Auto Supply & Service Co.	Washington, D. C.	Mercantile	1916
Sears, Roebuck & Co.	Chicago, Ill.	do	1916
Simmons, R. F., Co.	Attleboro, Mass.	Manufacturing jewelry	1902
Simplex Wire & Cable Co.	Boston, Mass.	Manufacturing insulating wires and cables	1901
Spencer Wire Co.	Worcester, Mass.	Manufacturing wire	1915
Stambaugh-Thomson Co.	Youngstown, Ohio	Mercantile	1912
Stevens, Samuel	Columbus, Ohio	do	1912
Stern, Bernard & Son	Milwaukee, Wis.	Manufacturing — Flour milling	1913
Title Guarantee & Trust Co.	New York, N. Y.	Banking	1911
Tyler, W. S., Co.	Cleveland, Ohio	Manufacturing mining screens	1914
Underwood Typewriter Co., Inc.	New York, N. Y.	Manufacturing typewriters	1916
Union Savings Bank & Trust Co.	Cincinnati, Ohio	Banking	1901
United Electric & Water Co.	Hartford, Conn.	Public utility	1916
Vitagraph-Lubin-Selig-Essanay Co. (Inc.).	New York, N. Y.	Mercantile — Distributors of moving-picture films	1915
Ward Baking Co.	do	Bakers	1913

119. The shop committee system[1]

Essential principles of the shop committee system.

Another plan to improve the wages system is known as the shop committee system. This plan may take many forms, but its essential principles are as follows: The shop committee, or shop committee system, is a system of government set up in a particular plant by mutual consent and after common study on the part of employer and employed, the main object being to bring about well-ordered relations between truly representative spokesmen of both employer and employees. In developing a typical or ideal shop committee system, a joint committee of employees and management districts the plant, dividing it into convenient administrative units whose size may vary from fifty to several hundred employees. Quite elaborate rules are drawn up for the control and conduct of these units. There is provision for an appointive representation of the management to meet jointly with representatives and committees of the workmen for the settlement of ordinary and extraordinary grievances, often including a general revision of the wage scale, questions of employment, and so on. The following discussion of the shop committee system is by Mr. W. L. Stoddard:

How the shop committee system was installed in a certain large industrial plant.

Let me illustrate this by a concrete example: In a certain large industrial plant employing some 10,000 men and women, there has recently been introduced a shop committee system. This system was worked out in conference by the management and a committee of employers, sitting with an administrator of the National War Labor Board which had made an award decreeing a shop committee system. The plant was first divided into some 60 sections, varying in size from 75 to over 300 employees working at more or less the same craft or occupation. These sections were then grouped, two to five in a group, into "shop," the "shops" representing similar or allied manufacture and having in addition a geographical reason for their existence. Each section at a secret election, attended by the employees alone, chose two representatives. Each shop chose from the sectional representatives three men and women to serve on the joint shop committee, and all the sectional representatives, meeting

[1] From W. L. Stoddard, *Committee System in American Shops*. Printed in *Industrial Management*, Vol. LVII, June, 1919, pp. 474–475.

and voting at a convention, elected the employee members of the general adjustment committee. The management at the same time appointed its representatives to meet with the employee representatives, thus completing the system.

One would find difficulty in laying down any hard and fast rules for the definition of a shop committee system. The Whitley report very wisely avoided detailed discussion of shop committees, and contented itself with outlining functions and defining principles, rather than rules. A shop committee system must fit the peculiar local conditions of the plant in which it is to operate. In some plants it must necessarily be elaborate, and in others simple. But to succeed in any plant a shop committee system must be based on full, frank and free discussion between men and management, and animated by the spirit of actual coöperation. The object is coöperation, the breaking down of autocratic management, the establishment of a measure of industrial democracy, the giving of the responsibility and privilege of management in part into the hands of the employees.

Types of shop committees.

Several type forms of shop committee systems are springing up in this country. It is impossible in the space of this article to catalogue or describe them all, but I wish to call attention to two which are of importance. One may be called the . . . Rockefeller type; a [second] is patterned after the United States Government. Let us take the last first.

The William Demuth Company of New York City has a plan of this sort. There is a cabinet, a senate and a house of representatives. The cabinet consists of Mr. Demuth and his executives. The senate consists of about 30 foremen from the various departments. The house of representatives consists of employees elected by the body of employees — the "people." Each department elects one representative, and the senate has one senator from each department. Any question may be brought up in either body. When an issue cannot be settled by agreement of house, senate and cabinet, it goes to a judicial council or board of conciliation composed of one man selected by the employer, one by the employee, and one selected by these two.

Plans of this type appear to operate succesfully, though in one or two plants the upper body or senate has been abandoned in favor

of the scheme of direct contact between representatives of the men and foremen.

What I have called the Rockefeller type is exemplified in the works of the Standard Oil Company at Bayonne, N. J. The works are divided into divisions, not necessarily along craft or occupational lines, but including in one division several crafts. Each division is represented by at least two representatives, elected secretly, and there is at least one representative to every 150 employees. The representatives deal with the management in discussing problems which arise in the plant. This type of shop committee is very simple and is not adapted to factories where the employees, either through a high degree of organization, or otherwise, are insistent on strict craft representation. . . .

120. The employer's part: a summary [1]

Significance of the position of the employer in the improvement of the wages system.

In the great problem of improving the wages system, it is highly important that the employees of a particular establishment approve and support plans adopted by the employer. But since most plans for improving the wages system are not even put into effect until the employer takes the initiative, it is perhaps still more essential that the employer understand and approve schemes by means of which work conditions within his plant may be improved. So rapid has been the development of plans to improve the wages system that a wide choice is open to the employer who really seeks this end. In the following summary an American economist, Professor Irving Fisher, enumerates the chief ways in which the employer can improve the wages system:

I. The Instinct of Self-Preservation

The instinct of self-preservation.

Maintain healthy working conditions. Guard against overfatigue. Provide safety devices. No man can do his work well if he feels it is fitting him only for the scrap heap.

Provide a living wage.

Assure your men of steady jobs as long as they do their part. Let them know that, if laid off without any fault of theirs, they will be

[1] From Irving Fisher, "How Can the Employer Help the Worker Satisfy His Fundamental Human Instincts?" *The Survey*, Vol. XLI, March 29, 1919; p. 937.

given due notice or a suitable dismissal wage. Energy dissipated in worry means loss to all concerned.

II. The Instinct of Workmanship

The instinct of workmanship.

Find the right job, mentally and physically, for every man and the right man for every job.

Enable the man, by exact records, to have a true and accurate picture of his work and of any improvement he makes in it.

Educate him to understand what part his work plays in the whole, and the uses to be made of the product.

Encourage the workman to suggest improvements in the processes and thus stimulate personal interest.

Make it possible for the workmen to participate collectively and regularly in determining the processes of production.

Guard against the tendency to let the workers slip into dead-end jobs. Make it plain that efficiency means advancement.

Encourage promotions and the development of all-round ability.

Make your directions to workmen clear, concrete and specific and have a well thought-out plan of work. Set the men a good example as to standards of workmanship.

III. The Instinct of Self-Respect

The instinct of self-respect.

Utilize the records of work to give the credit and standing which a good record deserves in the eyes of the employer and of fellow workers. The spirit of rivalry spurs initiative.

So far as possible, use praise as the chief incentive rather than blame or threat of dismissal. If it is really necessary to call a man down, avoid doing so before his fellow workers.

Consider a man trustworthy until he has proved himself untrustworthy. Even-handed justice is recognized by saint and sinner.

IV. The Instinct of Loyalty

The instinct of loyalty.

Encourage the men to develop a team spirit by forming an organization of some kind.

Collective bargaining, participation in shop management, mass activities, group singing, marching in a parade, wearing a button, or cheering a baseball team will foster a united feeling.

Make the organization worth being proud of. Pride is a weather-proof cement.

Loyalty is based on justice and mutual consideration. Prove to the workman that you respect his rights and wishes. *Put yourself in his place.*

Afford an opportunity for presenting grievances and for their adjustment.

If you want overtime or special consideration from him let him, if possible, have the fun of volunteering the service.

V. The Instinct of Play

The instinct of play.

"All work and no play makes Jack a dull boy." The balanced life demands recreation which provides a safety valve for many inevitably repressed instincts. This play should be not frivolity, still less dissipation, but entertainment which will develop physical and mental health and a broadened outlook on life. A long work day makes proper play impossible, and is largely responsible for the man's resort to drink and other perversions of play.

Encourage membership on athletic teams, attendance at good movies, at reading rooms, and clubs. Have singing at the noon hour, and calisthenics to interrupt the morning and the afternoon. At least, try brief rest periods.

VI. The Instinct of Love

The instinct of love.

Conditions of employment should, in every way possible, conduce to happy family life. The unrest caused by bad instinctive life outside the plant is demoralizing.

A man thinks of his family as part of himself. His success means their happiness.

Do not arouse resentment by any action which affects the family welfare.

A workman with no home, or an unhappy home, is unstable.

VII. The Instinct of Worship

The instinct of worship.

"Man shall not live by bread alone." No man should be compelled to do work which will prevent attendance at church or inspiring public meeting, or crush idealism, or warp the spirit of humanity and

service. Every man should have a religion, and his daily work should be uplifted by, and really be a part of, his religion.

Conclusion.

In a word, your employee is a man with the same fundamental human nature as yourself. If he is to be loyal, efficient, and contented, he must have the opportunity to give expression to the best that is in him. Without self-expression no man can lead a normal life. It is *his* initiative which you should aim to encourage. This is not the ordinary offensive paternalism in which the employer takes the initiative and seeks to impose his ideas on a passive or unwilling workman. There is no adequate self-expression without a reasonable amount of self-direction. When the worker can be given a stake in the business and a voice in its management almost all the important motives are enlisted and strengthened — the motives of money-making, accumulating, creating, gaining credit, team play.

Questions on the foregoing Readings

1. What is meant by welfare work?
2. What was the foundation of the welfare work undertaken by Miss Beeks in the International Harvester Company?
3. Describe the manner in which Miss Beeks made the establishment into a model factory.
4. What was the "key" to the work of Miss Beeks?
5. What accounts for the failure of some attempts at welfare work?
6. Distinguish between time wages and piece wages.
7. What is the simplest way of basing compensation on output?
8. What are the chief objections to piece work wages?
9. What can be said with regard to a substitute for piece work?
10. Name some special features of scientific management.
11. What is the function of the written instruction card in scientific management?
12. Give a few examples of the results which have been secured by means of scientific management.
13. Why have some people concluded that profit sharing is fairly widespread in American industry?
14. How many profit-sharing establishments were in existence in this country in 1916?
15. What types of enterprises were represented in this list?
16. How long had most of these plans been in existence in 1916?
17. Comment upon the geographical distribution of the plants which were experimenting with profit sharing in 1916.
18. What are the essential principles of the shop committee system?

19. Describe the manner in which the shop committee system was installed in a certain large industrial plant.
20. Describe two types of shop committee.
21. What is the significance of the position of the employer in the improvement of the wages system?
22. What can the employer do to help the workman satisfy his instinct of workmanship?
23. What should be the employer's attitude toward the worker's instinct of self-respect?
24. What use may the employer make of the workman's instinct of loyalty?
25. What part does the instinct of play have in industrial life?

CHAPTER XXI

COÖPERATION

121. The origin of coöperation [1]

Modern co-operation originated with Robert Owen.

The essence of coöperation is that a group of individuals undertake to perform for themselves functions which are commonly carried on by some type of business man. There are four types of coöperation: consumers' coöperation, sometimes called distributive coöperation, or coöperation in retail trade; coöperation in credit; coöperation in marketing; and producers' coöperation. Consumers' coöperation, the oldest of these four types, began in England in the early part of the nineteenth century. In its initial form what is now known as consumers' coöperation formed a part of a program designed to improve the lot of the working classes. The originator of this first type of modern coöperation was Robert Owen, a great English philanthropist, who was born in 1771. As one method of spreading news of the newly discovered plan, Owen established a journal called *The Economist*. The part played by this journal in the early history of coöperation is described by Mr. George Jacob Holyoake as follows:

A new plan of human association

The first number of Mr. Owen's *Economist* appeared on Saturday, January 27, 1821, price threepence. . . . The title page of the volume declared that "*The Economist* was a periodical paper explanatory of the new system of society projected by Robert Owen, Esq., and a plan of association for improving the condition of the working classes during their continuance at their present employments." The time was clearly foreseen when an entirely new order of things would take the place of that then existing; but in the meantime temporary improvement was to be attempted in the condition of the "working classes." . . . . In the very first number of this *Economist* mention was made of the formation of a "Coöperative and Economical Soci-

[1] From George Jacob Holyoake, *The History of Coöperation*. London, 1875, Vol. I, pp. 66–70.

ety," which is the earliest record I find of a name now so familiar to the public ear.

is in 1821 given the name of

There was no want of emphasis in announcing the discovery of coöperation when the idea had taken a definite form in the minds of its originator and his friends. For some time the public had been told, in abounding phrases, that human affairs were henceforth to be based on some new principle to which no definite name was given. It does not appear whether anybody asked what it was, but there was a general expectation that the friends of the social state would hear of something to their advantage. At length one day in the autumn of 1821, the editor of the *Economist* broke in upon his readers with an air of importance, and small capitals, and said to them:—

coöperation.

"The secret is out; it is unrestrained *coöperation*, on the part of *all* the members, for *every* purpose of social life." Undoubtedly this was big intelligence. There was no want of comprehensiveness in it. Coöperation of this description looked a long way forward, and spread very far around. Clearly it meant communism, and whoever expressed it, in the words quoted [above], knew very well what he meant, and said it in well-chosen terms. . . . It was a very small, eager, active, manifold thing which issued in the name of coöperation, then for the first time distinctively named; but during the next ten years it spread wondrously over the land. . . .

Change in the meaning of the term.

The term coöperation was at first . . . used in the sense of communism, as denoting a general arrangement of society for the mutual benefit of all concerned in sustaining it. Later, the term coöperation came to be restricted to the humbler operations of buying and selling provisions. From implying concert of life in community it sank into meaning concert in shopkeeping. It seems now, as it seemed then, a ridiculous thing that the commencement of the social reformation of the world should consist in opening a cheese and butter shop. It was a great descent from the imperial altitude of world-making to stoop to selling long-sixteen candles and retailing treacle. Doubtless, if we only knew it, the beginnings of civilized society were not less absurd. There were in all probability dreamers who stood on the verge of savage life and contemplated with poetic exultation the splendid future of civilization, when men should abandon their reckless and murderous habits and master methods of thrift and peace. . . .

In a way the originator of coöperation never foresaw, a practical part of his views was destined to obtain a strange ascendancy. Who would have dreamed that flannel weavers and mechanics, shoemakers and cotton-spinners of Rochdale, that adventurous but humble band of pioneers who commenced their petty and then absurd store in 1844, were founding a movement the voice of which would pass like a cry of deliverance into the camps of industry in every country where workmen had the instinct of self-improvement? . . .

Robert Owen and the coöperative movement.

Coöperation, that new power of industry which has grown up in this generation, Mr. Owen no more constructed than George Stephenson did that railway system which a thousand unforeseen exigencies have suggested and a thousand brains matured. But as Stephenson the elder made railway locomotion possible, so Owen set men's minds on the track of coöperation, and time and need, failure and gain, faith and thought, and the good sense and devotion of multitudes, have made it what it is.

122. Consumers' coöperation[1]

The progress of consumers' coöperation.

From the small beginnings described in the preceding selection, consumers' coöperation has grown into a mighty movement, compelling the respect and serious attention of all who are genuinely interested in the economic and social problems of modern life. After the middle of the nineteenth century consumers' coöperation made rapid progress in Great Britain, until at the present time, it is claimed, the consumers' coöperative movement affects the daily lives of possibly half of the population of that country. Consumers' coöperation has also been very successful in Germany, Belgium and other European countries. The idea was taken up in the United States about the middle of the nineteenth century, and at the present time there are in this country several thousand coöperative stores. Something of the extent of consumers' coöperation in the United States is indicated by the following description by Mr. James Peter Warbasse, President of the Coöperative League of America:

All over the country the movement has developed. It has been sporadic. No center can be designated as the seat of the renaissance

[1] From James Peter Warbasse, *The Coöperative Consumers' Movement in the United States*. The Coöperative League of America, New York, 1920.

There are over 3,000 consumers' coöperative societies in the United States.

of coöperation. The agricultural people of the northern states have been among the first in this new era. The Coöperative League of America has knowledge of over 3,000 true consumers' coöperative societies conducting stores. In some locations the purchasing power of groups of societies has become so great that they have federated and organized wholesale societies.

The Farmers' Educational and Coöperative Union.

The Farmers' Educational and Coöperative Union spread from Texas, where it was organized in 1902, into nearly every state. It is particularly strong in Kansas where there are to-day 750 coöperative societies conducting retail stores. These stores are organizing so rapidly and enjoying such signal success, as to fill the private tradesmen with serious concern. The Farmers' State Exchange at Omaha, Nebraska, is a central wholesale house doing a business of $3,000,000 a year, and dealing in everything from mittens to mowing machines. Kansas and Nebraska may now be said to be the greatest coöperative states in the Union.

The coöperative movement in Kansas,

Kansas has 300 societies which not only operate retail stores dealing in groceries, clothing, shoes, dry goods, hardware and furniture but which conduct exchanges for the sale of hay, coal, fertilizer, seeds and farm machinery, and for the marketing of farm produce. . . . One farmers' society does a business of $5,000,000 annually; its retail store has a yearly turnover of $400,000. The total business of the 600 societies of the Kansas Union amounted to $200,000,000 in the year of 1919. . . .

Iowa, Missouri, Oklahoma, Colorado,

Iowa has about 300 societies operating retail stores. Missouri and Oklahoma each has 100 distributive societies. Rapid development is beginning to take place in Colorado and the neighboring states. . . .

Wisconsin, Minnesota, the Dakotas, Montana,

Many store societies in the northern states — Wisconsin, Minnesota, the Dakotas and Montana — are growing up in the farmers' produce-selling organizations. Their wealth, numbers, and the size of their membership, are increasing steadily. . . . Among these societies are several organizations which manage groups of distributive societies, and do their bookkeeping, auditing, buying, and generally supervise their work. One is developing a mail order business. An example of the method of operation is the Silverleaf, North Dakota, Society. A group of farmers subscribed $200 each. They bought out two merchants in the nearest town. One building was remodeled

and used as a store, warehouse and creamery, the other as a community center. . . .

Pennsylvania,

Groups of miners and of steel workers have organized coöperative stores in Pennsylvania under the encouragement of the State Federation of Labor and of the United Mine Workers. There are about 200 societies in Pennsylvania with an average membership of 150 each.

Illinois,

Illinois has about 100 societies. The dominant influence among them is also that of the United Mine Workers. More than half of these are connected with the Central States Wholesale Coöperative Society. . . . There are between thirty and forty independent Rochdale societies owning stock in the wholesale and sixty trade union stores connected with it. The business of this wholesale in 1920 averaged $300,000 a month. . . .

the Northwest,

In the northwest the labor unions of Seattle have become interested in coöperation. They organized the Food Products' Association and took over a large market building, where they do a business in meat and groceries. Their market is a concrete building with its own ice plant and cold storage. Among these Washington coöperatives are found a laundry, printing plant, several shingle mills, fish cannery and recreation houses. Behind them is the support of the labor unions. . . .

and California.

An older coöperative movement is found in California. The Rochdale movement started there fully twenty years ago. It experienced many vicissitudes. A wholesale was organized, but it failed to give substantial help. The Pacific Coöperative League was incorporated in 1913 as a propaganda and sustaining organization. It organizes chain stores or branches in California and the neighboring states under "The American Chain Store Plan." . . .

123. Coöperation in credit[1]

Coöperation in credit in the United States.

Coöperation in credit has been tried out with marked success by the artisans and small farmers of Germany. It has also enjoyed some success among the artisans and small tradesmen of Italy, as well as among similar groups in one or two other European countries. In

[1] From Arthur H. Ham, *The Credit Union and the Coöperative Store.* Address delivered at the Conference of Eastern Coöperative Societies, New York, 1917.

the United States this form of coöperation has never exerted a great deal of influence, though there are indications that this influence may increase if the European types of credit coöperation are adapted to meet American conditions. In this connection, it is interesting to note that recently the "credit union" has attracted favorable attention in the United States. The credit union is an adaptation of the European coöperative bank or credit society, as is explained by Mr. Arthur H. Ham in the following selection:

Aims of the credit union.

The credit union is a coöperative association of persons mutually acquainted which seeks: (1) to encourage thrift by providing a safe, convenient and attractive medium for the investment of the savings of its members; (2) to promote industry and eliminate extortion by enabling its members to borrow for productive and other beneficial purposes at a reasonable cost; (3) to train its members in business methods and self-government and bring to them a full realization of the value of coöperation.

Its relation to the European coöperative bank or credit society.

The credit union is an adaptation of the European coöperative bank or credit society. It is just an extension of the coöperative banking principle which, starting in Germany nearly seventy years ago, has spread to practically every European and many Asiatic countries, taking on new names and some new characteristics to suit local conditions, but always preserving the elements which have caused its steady growth and phenomenal success.

Extent of the credit union movement in the United States.

Laws authorizing the organization of credit unions have been enacted in Massachusetts, New York, Rhode Island, North Carolina, Wisconsin, Texas, Utah, and Oregon. Under these laws about 120 credit unions, rural and urban, have been organized: 60 in Massachusetts, 40 in New York, 14 in North Carolina, and the remainder scattered among the states of Oregon, Rhode Island and Texas. Of the Massachusetts credit unions all except one have been formed in urban centers; of the New York credit unions 35 are urban (34 in New York City) and six are rural. All of the North Carolina credit unions are rural. In addition to these a number of credit unions have been formed as voluntary associations in the states of Connecticut and New Jersey. In New York City alone there are scores of mutual savings and loan associations which are virtually credit unions though not incorporated under the law.

Credit unions in New York.

The incorporated credit unions in New York now have a membership of 10,000, with assets of nearly a half million dollars. Their bases of membership include: (1) employment in industrial, mercantile and public service corporations; federal, state and municipal departments; (2) membership in fraternal and religious organizations; (3) membership in neighborhood associations, and (4) group acquaintanceship based on racial lines.

Organization of the credit union in New York.

Under the law of New York — and this is typical of the credit union laws of all states — a group of persons of good character who are identified with the same factory, business, religious or fraternal association, or other organization that may be selected as the basis of membership, may join together to form a credit union. Once organized under the authority of the banking department they may add to its membership other persons with whom they are associated or acquainted. A safe and attractive medium for the investment of the savings of members is offered by the instalment share of the credit union, for at least one of which each member must subscribe. Such shares are of small par value, and are payable in weekly or monthly instalments. Each member is encouraged to subscribe for as many shares as he can afford. Money is also received on deposit as in a savings bank. The shares encourage regular periodic saving for distant expenditures, while deposits are savings for more imminent needs. Interest is allowed on deposits at or slightly above the savings bank rate, and dividends are paid upon shares. Most credit unions that have attained full headway pay a dividend rate of from five to seven or even eight per cent per annum.

Conditions governing loans.

Out of the funds so accumulated loans are made to members for productive purposes or purposes that will effect a saving, or supply an urgent need. Loans are commonly made for not more than a year, and are payable in weekly or monthly instalments. Ordinarily loans are secured by the promissory note of the borrower, with or without endorsements of fellow members or other security. On small loans endorsements are usually not required. The character of the borrower, appraised when he is admitted to the credit union as a member, and again appraised when he becomes an applicant for a loan, determines the amount of credit extended. His financial solvency plays but a small part in the matter. . . .

How the credit union is managed.

The active management of the credit union is delegated by the general meeting of the members to a board of directors, a credit committee, and a supervisory committee, the members of which serve without pay. The directors have the general management of the affairs of the union. They act upon applications for membership, determine the rate of interest upon loans and deposits, and declare dividends. The credit committee has charge of the granting of loans to members and fixes the terms of repayment. The supervisory committee audits the books and accounts and oversees the acts of the directors, officers and credit committee.

Benefits of the credit union.

The credit union effectively encourages saving. There is thrift in borrowing as well as in saving, and through the credit union a member may borrow without other security than his own character, and at more favorable interest rates than he can obtain elsewhere. A credit union enables a member to buy for cash necessary commodities on which he has been accustomed to pay an unconscionable profit by buying on the instalment plan. A loan made in an emergency relieves the member of the necessity of paying ruinous interest rates to loan sharks. Such loans may prove helpful and beneficial in numerous ways. Members may form themselves into a coöperative buying club and finance its operations through the credit union.

Conclusion

The law permits to credit unions a reasonable amount of borrowing from outside sources of capital, and in practice it has been found that the collective liability and character of members joined together in this manner is sufficient to establish a reasonable amount of banking credit for a credit union on favorable terms. Thus a link is established by the credit union between the individual's need for credit and those who have money to lend. Coöperation brings credit facilities within the reach of those who individually could not obtain them. Capacity for united action and ability to join in sympathetic association are the solution of the difficulties of those who labor under credit handicaps and disadvantages. . . .

124. Coöperation in marketing [1]

The aim of coöperation in marketing.

Coöperation in marketing aims to reduce the number of middlemen who handle commodities on the way from the producer to the consumer. Coöperative marketing has long been successful in Denmark and other European countries, and of late years has become important in the United States. The advantages of successful coöperation in marketing are of two kinds. In the first place, it insures larger returns to, say, the farmer who has food stuffs to market; in the second place, it operates to reduce the prices which the consumer pays for such produce. Some of the aspects of coöperative marketing among American farmers are discussed in the following extract from the 1914 *Year book* of the United States Department of Agriculture:

The American farmer is being driven to coöperation.

A new faith has developed on the part of the farmers themselves that the coöperative plan of doing farm business is the most satisfactory method. Like the European farmer, the American farmer is being driven to coöperation by necessity. In the United States the necessity arises chiefly from the costly, clumsy, and unbusinesslike methods of distributing food products, resulting in an abnormal discrepancy between the price paid to the producer and the cost to the consumer.

The two services of coöperative marketing.

American farmers are beginning to realize that by selling coöperatively they not only will be able to offer a standardized product and reduce the cost of marketing, but they will be able to furnish this better article to the consumer at the same or even a lower price, thus stimulating consumption. In fact, any system of marketing that does not hope to give better service or better prices to the consumer, and, at the same time, secure for the producer a greater net return, is founded on improper principles.

The first class of producers to be driven to coöperative marketing.

The producers of perishable products that are grown at a great distance from the consuming markets have been the first class to be driven to a system of coöperative marketing. This accounts for the fact that the best organized coöperative marketing associations in America are found among the California citrus-fruit and nut growers, and the deciduous-fruit growers of the Pacific Northwest. The per-

[1] From the United States Department of Agriculture, *Year Book* for 1914. Washington, 1915; pp. 187–191.

ishable nature of the products and the heavy transportation expense have compelled the growers to organize and stay organized, so that they might grow the best, grade and pack honestly, distribute evenly, and market economically.

What coöperative marketing involves.

The work of the marketing associations includes the establishing of grades and standards; the adoption of brands and trade-marks; the securing of capital and credit; proper advertising to encourage consumption of a meritorious but little-known product; discovery of new and extension of old markets; securing information as to crop and market conditions; the equitable division of profits; adapting production to meet market requirements; the use of by-products; securing cold and common storage facilities; the coöperative buying and manufacturing of supplies; coöperative use of expensive farm machinery; securing of lower freight rates, more equitable refrigeration charges, and more efficient transportation service; the securing of more and better labor; and the general cultivation of a spirit of coöperation in all community affairs.

A coöperative enterprise is not automatic.

A coöperative enterprise is not automatic. Joining such an organization is but a start. The benefits come from making use of the system. Several farmers might unite in purchasing a threshing machine, but no benefits would follow unless the members make use of the machine. If they continue to patronize other threshing outfits with part of their grain, the success from their purchase will be incomplete and the venture may even result in a loss. No coöperative marketing association should be attempted unless the prospective members feel that it will do the work better or at a less cost than any existing plan. The object must be to eliminate or reduce waste.

What members of a marketing association must be willing to do.

Farmers must be willing to furnish their products, invest their share of the necessary capital, and at all times give their enthusiasm and most loyal support to the coöperative enterprise undertaken. Frequently a member offers to "let" the association handle a part of his products, forgetting that the favor is to himself rather than to the organization, and that the part of his crops which he holds back furnishes the most difficult competition for the coöperative effort to face. The person who lacks sufficient faith in the coöperative plan to "go in all over" will prove an element of weakness rather than of strength.

Strange as it may seem, there are many who prefer to ship their

products to a distant market, of which they know practically nothing, to be handled by some firm of whom they know less, rather than to have their property marketed by a competent manager of their own selection, acting under surety bonds, and who is directly answerable to themselves. A person who prefers to patronize a market lottery, when he knows from experience that his prospect of drawing a prize is very improbable, is not ready for a united effort with his neighbors. . . .

Many farmers are slow to accept the principle of coöperative marketing.

Many students of rural economics assert that coöperation as applied to the distribution and marketing of farm products is not very successful unless it is founded upon dire necessity. When the records of the organizations of the country are analyzed, it becomes almost necessary to accept that statement. So long as farmers do well in their own way they are not inclined to coöperate. This attitude is based largely on the independence they have enjoyed for so many years. They are slow to delegate to another the control of anything that concerns them personally. Furthermore, as a class they are exceedingly suspicious of efforts made by others to improve their condition. This is not true of all communities, because in parts of the country the agriculturists are specialists in certain lines that require great intelligence and judgment. Generally speaking, however, farmers will not successfully coöperate unless their condition becomes unbearable. . . .

Some reasons for this.

125. Producers' coöperation [1]

The Coöperative League of America believes that producers' coöperation is generally a success when engaged in by consumers' societies, and when the product is intended, not for the general market, but for the exclusive use of members of these consumers' societies. The League believes, on the other hand, that producers' coöperation is universally a failure when engaged in by persons not members of a consumers' society, and when the aim is to produce for the general market rather than exclusively for members of a consumers' society. In the following selection, Mr. Warbasse illustrates the failure of this second type of producers' coöperation:

Two types of producers' coöperation.

[1] From James Peter Warbasse, *Producers' Coöperative Industries*. The Coöperative League of America, New York, 1921.

Failure of the coöperative producers' factory

We must face the facts. The coöperative producers' factory has failed. After a hundred years of painful experimenting, history shows that when a group of workers organize and control their product, their motive is to get as much as they can for it. The interest of the small group of workers is to exploit the great mass of consumers. Even though they are less ruthless, and give better value than capitalistic producers, the main fact still stands. They sell their product in competition with capitalistic producers, and no matter how unselfish and ideal their original plan has been, they tend ultimately to become animated by the same spirit of trade as animates the capitalist.

illustrated by the history of cooperation in the United States from 1845 to the present time.

The history of the coöperative producers' factory in the European countries is in line with the above facts. The United States is not without its examples. From 1845 down to the present time, such organizations have come and gone, and left their groups of sad and disillusioned workers standing by the wayside.

The Workingmen's Protective Union, the Sovereigns of Industry, the Patrons of Husbandry, and the Knights of Labor, all organized coöperative producers' enterprises. The latter had several boot and shoe factories in New England between 1875 and 1885. These attempts at coöperative industry contributed largely to the breaking down of this splendid old organization. Printing societies, iron foundries, cloth mills, glass factories, laundries, clothing factories, and box factories, have each passed into history.

Other producers' coöperative enterprises in the United States have made furniture, underwear, brooms, coal, nails, pipes, lumber, pottery, soap, stoves, tobacco, and most every other American product. At the organization of many of these, twenty-five, fifty and seventy-five years ago, the same language was used and the same plans were made as we find in the case of groups of workers now blindly planning producers' industries.

The Coöperative Stove Works of Troy, N. Y., founded as the result of a strike in 1866, developed a capital of $106,000 in twenty-five years, but by that time there were but ten of the original workers in the concern, and six men owned more than half of the stock. The same happened in the Coöperative Foundry of Rochester, N. Y.; organized in 1867, it grew till it had a capital of $200,000 twenty years

later and was doing a business of $350,000 a year; but it ended by becoming a capitalistic stock company owned by thirty-five stockholders. A similar history follows the cigar and glove factories.

The Coöperative Hat industry of Philadelphia was started in 1887 and went the way of the rest. A coöperative hat factory in New York had capital, enthusiasm and idealism, but it failed for want of an organized market of consumers. The Coöperative Barrel Works of Minneapolis, organized in 1874, had by-laws which voiced ideal standards of industry, and every condition surrounded their enterprise to make for success; [but they ultimately failed]. . . .

In 1919 the Brotherhood of Maintenance of Way Employees and Railway Shopmen invested around a million dollars in factories for the manufacture of gloves, hosiery, and underwear. Although called coöperative, like all of the above enterprises, they were really not coöperative. The Coöperative League of America advised against the course they were entering upon; but oblivious of a hundred years of failure they went ahead, and the poorest paid of the Railroad Brotherhoods in less than a year have sunk their hard-earned savings in a hopeless failure.

126. The aims of coöperation: a summary [1]

All four forms of coöperation have certain features in common.

We began our survey of coöperation with a brief discussion of the origin and early history of the modern coöperative movement. Then followed a short description of each of the four types of coöperation as they have been applied in the United States. The differences existing among the four types of coöperation discourage any generalization as to the characteristics of coöperation in general; on the other hand, all of the forms of coöperation have certain features in common, which it will be of interest to survey in this concluding selection. The following discussion of the aims of all types of coöperation by Professor Charles Gide:

Coöperation aims at the economic emancipation of certain classes.

(1) All coöperative organizations aim at the economic emancipation of certain classes of society, in order that they may do away with unnecessary intermediaries or middlemen and learn to suffice unto themselves. Consumers' societies help consumers to get along with-

[1] From Charles Gide, *Principles of Political Economy*. D. C. Heath & Co., 1909; pp. 480–482.

out butchers, bakers, and other retail shopkeepers, by enabling them to purchase goods directly from the producers, or, better still, by themselves producing whatever they need. Credit associations enable borrowers to escape the clutches of usurious money-lenders, by obtaining for them directly the capital which they need, or even by helping them to create this capital for themselves by means of ingenious schemes for collective saving and mutual assistance. Productive associations enable workers to dispense with employers, by making commodities under their own guidance and selling them directly to the public.

Coöperation aims to substitute solidarity for competition.

(2) [All forms of coöperation] aim at the substitution of solidarity for competition, and of the coöperative motto, "Each for All," for the individualistic device, "Everybody for Himself." Instead of competing with each other, men form associations to provide for the satisfaction of their wants; and these associations make it a rule not to compete with each other; but, on the contrary, to unite in the formation of great coöperative federations.

Coöperation aims at the diffusion of property.

(3) [All forms of coöperation aim], not to abolish private property, but to make it more general by facilitating the acquisition of private capital by saving or borrowing, and to create corporative property or collective ownership of stores, banks, workshops, factories, and houses.

Coöperation aims to deprive capital of its controlling influence in production.

(4) [All forms of coöperation] aim, not to suppress capital, but to deprive it of its controlling influence in production, and to withhold that part of the product which capital appropriates in the form of profits and dividends. . . . Many coöperative associations are expressly forbidden by their constitutions to make any profits, or are obliged to pay them into a reserve fund. Other associations distribute profits among their members in proportion to their purchasers (when the members are "purchasing" members), or in proportion to their labor (when they are employees), but never in proportion to their shares, *i.e.* to the capital they furnish. Those who contribute shares of capital and those who make loans of capital always do so simply for a moderate interest, never in consideration of dividends. Some societies pay no interest at all on their capital. When we note that in joint stock companies and corporations, which are now increasing so rapidly in wealth and numbers, capital appropriates the

proceeds of the enterprise, conducts production, and reduces all the workers to the rank of hired employees, we are better able to understand that the system of coöperation really means nothing less than a social revolution, inasmuch as it reverses the present situation, and places capital under the command control of labor.

The educational value of coöperation.

(5) Lastly, all coöperative associations possess great educational value, because they teach their members to sacrifice no part of their individuality or their spirit of enterprise, but, on the contrary to develop their energy and ability to the utmost degree, to help others by helping themselves, to regard the satisfaction of legitimate wants (not the pursuit of profits) as the purpose of economic activity, to raise the moral level of economic relations by suppressing advertisements, trickery, food adulteration, the sweating system, etc., and to abolish all the methods by which men exploit each other, as well as all the causes of social conflict. Indeed, it may be said that each important variety of coöperative association is characterized by the abolition of some social conflict, of some clash of economic interests: the consumers' association suppresses the conflict between seller and buyer; the credit association suppresses the conflict between creditor and debtor; the productive association suppresses the conflict between employer and employee. . . .

Questions on the foregoing Readings

1. Who was Robert Owen?
2. What is the significance of the year 1821 in the history of coöperation?
3. In what sense was the term "coöperation" first used?
4. What change was later effected in the meaning of the term?
5. Summarize Robert Owen's relation to the coöperative movement.
6. Discuss the progress of the consumers' coöperative movement.
7. About how many coöperative stores are there in the United States?
8. Comment upon the consumers' coöperative movement in Kansas.
9. What can be said as to consumers' coöperation in the northern states?
10. Briefly describe consumers' coöperation on the Pacific Coast.
11. What is a "credit union"?
12. What are two aims of the credit union?
13. What is the extent of the credit union movement in the United States?
14. Outline the organization of the credit union in New York.
15. What are the chief conditions governing loans by the credit union?
16. How is a credit union managed?

17. What are the two kinds of advantages which result from coöperation in marketing?
18. Enumerate some of the activities involved in coöperative marketing.
19. What is meant by saying that "a coöperative enterprise is not automatic"?
20. What are some reasons why coöperative marketing is backward in this country?
21. Distinguish between the two types of producers' coöperation.
22. Give some illustrations of the failure of that type of producers' coöperation which produces for the general market.
23. Explain the statement that "coöperation aims at the economic emancipation of certain classes."
24. What is meant by the statement that "coöperation aims to substitute solidarity for competition"?
25. What is the attitude of coöperation toward capital?
26. What can be said as to the educational value of coöperative associations?

CHAPTER XXII

SINGLE TAX

127. The persistence of poverty in modern life[1]

The single tax defined.

By single tax is meant a policy under which all public revenue is to be raised by a single tax on land value. Land value is defined as the value of the land itself, irrespective of all improvements. This means that land value includes only two elements: location value and fertility value. The basic idea of the single tax is an old one, but the modern single tax movement owes its origin to the activities of an American reformer, Henry George. In 1879 George published a remarkable book, *Progress and Poverty*, in which he expounded his doctrine. In the following extract from *Progress and Poverty*, George points out that in spite of the progress of the world, poverty persists:

Henry George.

The productive power of labor has steadily increased,

In every direction, the direct tendency of advancing civilization is to increase the power of human labor to satisfy human desires — to extirpate poverty, and to banish want and the fear of want. . . . The growth of population, the increase and extension of exchanges, the discoveries of science, the march of invention, the spread of education, the improvement of government, and the amelioration of manners, considered as material forces, have all a direct tendency to increase the productive power of labor — not of some labor, but of all labor; not in some departments of industry, but in all departments. . . .

but wages do not increase

But labor cannot reap the benefits which advancing civilization thus brings, because they are intercepted. Land being necessary to labor, and being reduced to private ownership, every increase in the productive power of labor but increases rent — the price that labor must pay for the opportunity to utilize its powers; and thus all the advantages gained by the march of progress go to the owners

[1] From Henry George, *Progress and Poverty*. Appleton & Co., New York, 1879, Book v, Chapter II.

of land, and wages do not increase. Wages cannot increase; for the greater the earnings of labor the greater the price that labor must pay out of its earnings for the opportunity to make any earnings at all. . . .

because labor is deprived of its fruits.

And thus robbed of all the benefits of the increase in productive power, labor is exposed to certain effects of advancing civilization, which, without the advantages that naturally accompany them, are positive evils, and of themselves tend to reduce the free laborer to the helpless and degraded condition of the slave. . . .

This condition universal.

Look over the world to-day. In countries the most widely differing — under conditions the most diverse as to government, as to industries, as to tariffs, as to currency — you will find distress among the working classes; but everywhere that you thus find distress and destitution in the midst of wealth you will find that the land is monopolized; that instead of being treated as the common property of the whole people, it is treated as the private property of individuals; that, for its use by labor, large revenues are extorted from the earnings of labor. . . .

128. The remedy proposed by Henry George [1]

George rejects a number of proposed remedies for poverty, and proposes the "true remedy,"

After pointing out that poverty persists despite the progress of the world, George discusses six of the remedies for poverty which were advocated in his day. These are (1) greater economy in government; (2) the education of the working classes and dissemination of the principles of thrift; (3) the trade union movement; (4) "the coöperation of labor and capital"; (5) governmental regulation of industry; and (6) a more general distribution of land. After a short discussion of these so-called remedies for poverty, he concludes that all of them are either "inefficacious or impracticable." He then announces as "the true remedy" for poverty the abolition of private property in land. He continues the discussion in the following language:

which consists in making land common property.

We have reached this conclusion by an examination in which every step has been proved and secured. In the chain of reasoning no link is wanting and no link is weak. Deduction and induction

[1] From Henry George, *Progress and Poverty*. Appleton & Co., New York, 1879. Book VI, Chapter II; Book VII, Chapter I.

have brought us to the same truth — that the unequal ownership of land necessitates the unequal distribution of wealth. And as in the nature of things unequal ownership of land is inseparable from the recognition of individual property in land, it necessarily follows that the only remedy for the unjust distribution of wealth is in making land common property. . . .

The institution of private property . . . [in land] cannot be defended on the score of justice. The equal right of all men to the use of land is as clear as their equal right to breathe the air — it is a right proclaimed by the fact of their existence. For we cannot suppose that some men have a right to be in this world and others no right.

The institution of private property in land is unjust.

If we are all here by the equal permission of the Creator, we are all here with an equal title to the enjoyment of His bounty — with an equal right to the use of all that Nature so impartially offers. This is a right which is natural and inalienable; it is a right which vests in every human being as he enters the world, and which during his continuance in the world can be limited only by the equal rights of others. . . .

Arguments advanced in support of this view.

There is on earth no power which can rightfully make a grant of exclusive ownership in land. If all existing men were to unite to grant away their equal rights, they could not grant away the right of those who follow them. For what are we but tenants for a day? Have we made the earth, that we should determine the rights of those who after us shall tenant it in their turn? The Almighty, who created the earth for man and man for the earth, has entailed it upon all the generations of the children of men by a decree written upon the constitution of all things — a decree which no human action can bar and no prescription determine. Let the parchments be ever so many, or possession ever so long, natural justice can recognize no right in one man to the possession and enjoyment of land that is not equally the right of all his fellows. . . .

The recognition of individual proprietorship of land is the denial of the natural rights of other individuals — it is a wrong which *must* show itself in the inequitable division of wealth. For as labor cannot produce without the use of land, the denial of the equal right to the use of land is necessarily the denial of the right of labor to its own

Basic cause of the unequal distribution of wealth.

produce. . . . To this fundamental wrong we have traced the unjust distribution of wealth which is separating modern society into the very rich and the very poor. . . .

129. Results claimed for the single tax[1]

Nature of the single tax, as proposed by George.

After advancing arguments to substantiate his claim that the private ownership of land is unjust, George next considers the best means of applying his "remedy." His proposal is to allow individuals to retain possession of "their" land, but to confiscate land value by taxation. He further proposes to abolish all other taxes, thus making the tax on land value a single tax. This single tax is to take all land value for the benefit of the community, and is to be the source of all public revenue. George advanced the following claims for the single tax:

The single tax would encourage production,

To abolish the taxation which, acting and reacting, now hampers every wheel of exchange and presses upon every form of industry, would be like removing an immense weight from a powerful spring. Imbued with fresh energy, production would start into new life, and trade would receive a stimulus which would be felt to the remotest arteries. . . . All would be free to make or to save, to buy or to sell, undefined by taxes, unannoyed by the tax-gatherer. Instead of saying to the producer, as it does now, "The more you add to the general wealth the more shall you be taxed!" the state would say to the producer, "Be as industrious, as thrifty, as enterprising as you choose, you shall have your full reward! You shall not be fined for making two blades of grass grow where one grew before; you shall not be taxed for adding to the aggregate wealth." . . .

render possible a more equal distribution of wealth,

[The single tax would also have a desirable effect upon the distribution of wealth.] . . . If it went so far as to take in taxation the whole of rent, the cause of inequality would be totally destroyed. Rent, instead of causing inequality, as now, would then promote equality. Labor and capital would then receive the whole produce, minus that portion taken by the state in the taxation of land values, which, being applied to public purposes, would be equally distributed in public benefits.

[1] From Henry George, *Progress and Poverty*. Appleton & Co., New York, 1879. Book IX, Chapters I, II, and IV; Book VIII, Chapter II.

That is to say, the wealth produced in every community would be divided in wages and interest between individual producers, according to the part each had taken in the work of production; the other part would go to the community as a whole, to be distributed in public benefits to all its members. In this all would share equally — the weak with the strong, young children and decrepit old men, the maimed, the halt, and the blind, as well as the vigorous. . . .

improve government,

[The single tax would work great improvements in social organization and social life.] Noticeable among these is the great simplicity which would become possible in government. To collect taxes, to prevent and punish evasions, to check and counter-check revenues drawn from so many distinct sources, now make up probably three-fourths, perhaps seven-eighths of the business of government, outside of the preservation of order, the maintenance of the military arm, and the administration of justice. An immense and complicated network of governmental machinery would thus be dispensed with.

facilitate the administration of civil and criminal law,

In the administration of justice there would be a like saving of strain. Much of the civil business of our courts arises from disputes as to ownership of land. These would cease when the state was virtually acknowledged as the sole owner of land, and all occupiers became practically rent-paying tenants. . . . The rise of wages, the opening of opportunities for all to make an easy and comfortable living, would at once lessen and would soon eliminate from society the thieves, swindlers, and other classes of criminals who spring from the unequal distribution of wealth. Thus the administration of the criminal law, with all its paraphernalia of policemen, detectives, prisons, and penitentiaries, would like the administration of the civil law, cease to make such a drain upon the vital force and attention of society. We should get rid, not only of many judges, bailiffs, clerks and prison keepers, but of the great host of lawyers who are now maintained at the expense of producers; and talent now wasted in legal subtleties would be turned to higher pursuits. . . .

allow an extension of

All this simplification and abrogation of the present functions of government would make possible the assumption of certain other functions which are now pressing for recognition. Government could take upon itself the transmission of messages by telegraph

as well as by mail; of building and operating railroads, as well as of opening and maintaining common roads. . . .

numerous public services,

There would be a great and increasing surplus revenue from the taxation of land values, for material progress, which would go on with greatly accelerated rapidity. . . . This revenue arising from the common property, could be applied to the common benefit. . . . We could establish public baths, museums, libraries, gardens, lecture rooms, music and dancing halls, theaters, universities, technical schools, shooting galleries, playgrounds, gymnasiums, etc. Heat, light, and motive power, as well as water, might be conducted through our streets at public expense; our roads be lined with fruit trees; discoverers and inventors rewarded, scientific investigations supported; and in a thousand ways the public revenues made to foster efforts for the public benefit. . . .

and, in summary, would carry civilization to yet nobler heights.

[In summary the application of this remedy to the problem of poverty would] raise wages, increase the earnings of capital, extirpate pauperism, abolish poverty, give remunerative employment to whoever wishes it, afford free scope to human powers, lessen crime, elevate morals, and taste, and intelligence, purify government and carry civilization to yet nobler heights." . . .

130. The case for the single tax[1]

The single tax doctrine has attracted world-wide attention.

The doctrine of single tax, as expounded by Henry George, has attracted the attention of social reformers the world over. Thousands of articles, pamphlets and books have been written upon the subject. The doctrine has been lauded by a small group, condemned outright by a larger group, and accepted in part by a considerable number of thinking people. The following extract from the Debaters' Handbook Series gives in compact form the various arguments which have been advanced in favor of an acceptance of the doctrine of single tax:

Affirmative arguments:

All public revenue should be raised by a single tax on land values, because

[1] From the Debaters' Handbook Series, *Selected Articles on Single Tax.* Compiled by Edna D. Bullock. H. W. Wilson Co., White Plains, New York, 1915; pp. xiii–xvi.

I. The present national, state, and local taxes are fundamentally defective, for — Defects of our present tax system.

A. They are taxes on industry and improvements, and industry and improvements should not be taxed, for

1. Taxes falling on the products of labor discourage their production.
2. Taxes falling on improvements lessen the amount of improvements.

B. They are unjust taxes, for

1. They can be easily evaded.
2. They can to a considerable extent be shifted.
3. They bear heavily on the poor.
4. All taxes on the products of individual labor are unjust when society has a fund of its own from which to draw its revenues.

C. They are expensive, complex, and cumbersome, for

1. They are levied on a great variety of objects and require complicated machinery, and duplication of machinery, for their assessment and collection.

II. The single tax on land values will do away with the defects of the present system, for — The single tax would do away with these defects.

A. It will exempt industry and improvements from taxation, for

1. Land will bear the entire burden.

B. It is a just tax, for

1. It cannot be evaded, for
   - *a.* Land cannot be concealed or carried off.
   - *b.* Land values can be easily determined.
2. It cannot be shifted, for
   - *a.* It will be paid out of rent.
   - *b.* Landlords cannot pay the tax from an increase in rents, for
     - (1) Rents depend on supply and demand.
   - *c.* Economists are agreed that the single tax cannot be shifted.
3. It is a burden on no one, for
   - *a.* The fund upon which it draws is created by society, for

(1) All land values and all increase in land values are due to the presence of society, for

(*a*) If society were not there the land would have no value.

(*b*) Individual labor or improvements do not add to the value of the bare land.

b. It merely takes from the landowner the unearned increment of land due to presence of society, which increment is a social and not an individual product.

C. It is a simple tax, for

1. There is one object of taxation, land values.
2. Little machinery is necessary in order to assess and collect a tax on land values only.

D. It is an adequate tax, for

1. It has a large fund from which to draw revenue in the annual rental value of land and in the increase in value of land from year to year.

E. It is an elastic tax, for

1. The amount of revenue raised by the tax can be automatically raised or lowered by changing the rate, for
   a. The fund on which it draws is much larger than is necessary for all governmental expenditure.

Social benefits of the single tax.

III. The single tax on land values will bring about desirable economic and social readjustments which will be beneficial, for

A. The condition of the laboring classes will be improved, for

1. Land will be comparatively easy to get, for
   a. Idle land will be forced into the market and prices will fall, for
      (1) It will be taxed at its full value.
      (2) Speculators will not be able to hold it out of use and pay taxes on it.
2. The slum problem will be remedied, for
   a. Owners of cheap tenements will have to build better buildings in order to get sufficient income to pay the taxes on the land value.

b. Vacant land will be available at cheap prices.

c. The exemption of improvements will stimulate building.

3. Wages will be increased, for

a. Employers will be obliged to pay workingmen the equivalent of what they could produce on the land, for

(1) Land will be available to any one who will put it into productive use.

b. The opening up of the vast areas now held out of use for purposes of speculation will give a great amount of employment to labor.

B. The farmer will be benefited, for

1. The products of his labor, such as crops, his improvements, implements, stocks, etc., will be exempt from taxation.

2. He will actually pay less taxes than at present, for

a. The vast holdings of idle land in both cities and rural districts will bear their just share of the taxes.

C. All forms of industry will be stimulated by the exemption of labor, capital and all improvements on land, from taxation and by making the natural resources accessible to all.

IV. The single tax on land values has succeeded where it has been tried, for

The single tax has succeeded where it has been tried.

A. It has greatly benefited Vancouver, Victoria, Edmonton and other Canadian municipalities.

B. It has worked well in New Zealand and Australia.

C. Taxes with some single tax features are being used successfully by England, Germany, and other European countries.

131. The case against the single tax[1]

Negative arguments:

In opposition to the above claims, numerous arguments have been advanced against the single tax. These negative arguments have been summarized as follows:

Public revenues should not be raised by a single tax on land values, because

The present tax system is not inherently defective,

I. The present system of taxation is not inherently defective, for

A. On the whole, it is in harmony with the great principle of taxation that each individual should contribute to the support of the government in proportion to his ability to pay, for

1. Property taxes form the basis of our system of taxation.
2. Property is one of the best evidences of ability to pay.

B. It is a diversified system, and diversification in a taxing system is desirable, for

1. If any injustice results from one tax, it is apt to be equalized or mitigated by the other taxes.
2. A diversified system is a more certain source of revenue, for
   a. If one source fails, others can be drawn upon.
3. It affords greater elasticity.
4. It requires some contribution from practically every citizen.
5. It permits the application of taxes for social or political purposes.

and its specific defects can be remedied without overthrowing the entire system.

C. The specific defects in the present system can be remedied by specific reforms without overthrowing the entire system, for

1. The greatest evil of the present system of state and local taxation — evasion — can be done away with by the classification of property for purposes of tax-

[1] From the Debaters' Handbook Series, *Selected Articles on Single Tax.* Compiled by Edna D. Bullock. H. W. Wilson Co., White Plains, New York, 1915; pp. xvi–xix.

ation and by the taxation of different classes at different rates, for

a. If a low rate is placed on intangible and other personal property, the tax will not be evaded.

b. The classified property tax has practically done away with evasion in the states where it has been adopted.

2. Injustices in the present system can be remedied by the extension of progressive inheritance taxes in the states and the adoption of a progressive income tax by the federal government.

3. The separation of state and local taxation will secure greater simplicity and effectiveness in the taxing system.

II. Viewed solely as a system of taxation, the single tax on land values is defective, for

Defects of the single tax as a system of taxation: injustice, and

1. It fails to conform to the canon of taxation that all should pay taxes in proportion to their ability to pay, for

a. It taxes individuals only in proportion to the value of the land which they own.

b. It taxes the poor men's land and exempts the rich men's personal property, mansions, skyscrapers, and factories.

c. It takes no consideration of income, productiveness of property, or any of the evidences of ability to pay.

d. It exempts nearly all monopolies and trusts.

2. It discriminates against a certain class in society — the farmers, for

a. It compels them to bear an undue share of the burdens of taxation.

3. It discriminates against one of the elements of production, for

a. Labor and capital should also bear some of the burden of taxation, for

(1) There are socially created values in labor and capital as well as in land, for

(*a*) The products of labor owe their value to the presence of society.

(*b*) The factory and store would be worthless if society did not offer a market for their products.

(*c*) The business man's profits and the income of the professional man are socially created values.

(*d*) Houses and all other improvements have the same kind of socially created value as has land.

4. It is unjust to take the increment of land in taxes and not reimburse the landowner when there is a decrement in the value of his land.

difficulty of assessment.

B. It is difficult of assessment, for

1. It is often impossible to determine land values exclusive of improvements, for

a. The value of irrigated, cultivated or fertilized land cannot be correctly estimated apart from the improvements.

C. It is inelastic, for

1. It cannot be increased, for

a. The purpose of the single tax is to take all of the rent of land.

2. The selling value and rental value of land fluctuate and will cause fluctuations in the amounts raised by the tax.

It is inadequate,

D. It is inadequate, for

1. In many poor communities the rent of land is insufficient to meet the expenses of government.

will lead to extravagance,

E. It will lead to extravagance, for

1. In many communities there are enormous land values and large funds will pour into the public treasury.

2. The interest of citizens in having government economically administered will be lessened, for

a. A majority will pay no taxes.

F. Its adoption will necessitate the abolition of revenue taxes, such as the taxes on opium, liquors, tobacco, adulterated foods, etc., and of protective taxes, such as the tariff.

and will necessitate the abolition of revenue taxes.

III. As a scheme for social and economic reform, the single tax on land values is undesirable, for

A. It will result in the confiscation of private property in land, for

1. The appropriation by society of the rent and increase in value of land will abolish the selling value of land and constitute the state the universal landlord.

Defects of the single tax as a scheme of social and economic reform.

B. Confiscation of private property in land is not desirable, for

1. By a process of evolution society has evolved from a state of common or community ownership of land to a state of private ownership of land.
2. Private ownership of land is the basis of our civilization.

C. It will result in discouraging the policy of conservation, for

1. A premium will be placed on exploiting natural resources.
2. Timber lands especially will suffer, for
   a. The timber will have to be cut to pay the taxes, for
      (1) The land yields no income until the timber is cut.

132. Services rendered by the single tax agitation [1]

The majority of economists are agreed that the single tax, as advocated by Henry George, is too radical and drastic a reform ever to find wide acceptance among the American people. Nevertheless, the single tax agitation has performed a number of valuable services, as Dr. Arthur Nichols Young points out in the following selection:

The single tax agitation has rendered many valuable services:

Single taxers have found a ready object of criticism in existing tax methods, and they have not come short of their opportunity to point out faults. In this they have performed a most valuable public service. They have occupied a prominent place in the ranks of tax

it has aided in the reform of our taxation system:

[1] From Arthur Nichols Young, *The Single Tax Movement in the United States*. Princeton University Press, Princeton, 1916; pp. 313, 315, 319.

reformers. So far as destructive criticism goes they have frequently been in close agreement with those having other tax ideals. They have persistently laid bare the theoretical and administrative defects of the general property tax; they have shown the injustice of poll taxes; they have set forth the burdensomeness of federal indirect taxation; they have labored assiduously to relax the rigid tax clauses of state constitutions; and they have worked ardently for the juster and more efficient administration of taxes. . . .

it has directed attention to the social effects of taxation;

Finally, single taxers have directed attention to the social effects of taxation. The principle of using the taxing power as a means of social reform has unquestionably gained a wider acceptance as the result of the single tax agitation. . . .

it has aided the movement to conserve natural resources,

Another most important way in which the single tax movement has exerted influence has been in directing attention to the vital importance of the conservation of natural resources. . . . [Single taxers] have actively opposed the efforts which from time to time have been made to induce Congress to grant away the remainder of the nation's natural resources to those who covet them without requiring a due return. . . .

and it has directed attention to the problem of poverty.

Finally, the American single tax movement has been a powerful force insistently directing attention to the vexed problem of poverty. . . . Through the propaganda of Henry George and his followers hundreds of thousands have been led to consider how the condition of mankind may be ameliorated. Never before has the pressing importance of social reform been felt as in the last generation. The most vital message of Henry George's life and work was the urgency of social reform. Whatever the fate of the remedy for which he so earnestly contended, one thing is sure. Henry George made it plain that no true civilization can avoid the duty of finding a means to "extirpate poverty" and "to lighten the burdens of those compelled to toil."

Questions on the foregoing Readings

1. Define single tax.
2. Just what is meant by land value?
3. What is the importance of Henry George in the single tax agitation?
4. What is the importance of the year 1879 in the history of the single tax movement?

5. What did George point out with regard to the persistence of poverty in modern life?
6. What, according to George, is the reason for this persistence?
7. What were the six remedies for poverty which George examined and rejected as inadequate?
8. What remedy did George propose for the eradication of poverty?
9. What arguments did he advance to prove that the private ownership of land is unjust?
10. What, according to George, is the basic cause of the unequal distribution of wealth?
11. How, according to George, would the single tax encourage production?
12. What effect, according to George, would the single tax have upon the distribution of wealth?
13. What improvements, according to George, would the single tax work in social organization and social life?
14. Summarize the effects which George claimed would follow from an application of the single tax.
15. Outline the case in favor of the single tax.
16. What are the chief arguments against the single tax?
17. What, according to Dr. Young, has been the service rendered by the single taxers with regard to taxation reform in this country?
18. What service has the single tax agitation rendered with regard to the social effects of taxation?
19. What has been the service of the single taxers with reference to the conservation of natural resources?
20. Explain how the single tax agitation has performed a valuable service by directing attention to the problem of poverty.

CHAPTER XXIII

THE GENERAL NATURE OF SOCIALISM[1]

133. Socialist theory of value[1]

Nature of the socialist or labor theory of value.

In spite of the enormous amount of time and energy spent in discussing socialism, astonishingly little attention has been paid to the socialist theory of value. And yet this theory of value is the basis and foundation of all socialist doctrine. This was recognized by Karl Marx, the "father" of modern socialism, and he accordingly began his celebrated work, *Capital*, with a development of what has become generally known as the socialist or labor theory of value. Marx points out that all commodities have size, weight, color and other physical properties, but that these properties have no direct relation to the exchange value of commodities. He then declares that one property is characteristic of *all* commodities, *i.e.* they are produced by human labor. His reasoning soon becomes both complex and contradictory, but in essence it amounts to this: commodities tend to have exchange value in proportion as socially necessary labor has been expended upon them. In the following extract Marx explains what he means by this statement:

Labor a measure of value.

A . . . useful article, therefore, has value only because human labor in the abstract has been embodied or materialized in it. How, then, is the magnitude of this value to be measured? Plainly, by the quantity of the value-creating substance, the labor, contained in the article. The quantity of labor, however, is measured by its duration, and labor-time in its turn finds its standard in weeks, days, and hours.

Some people might think that if the value of a commodity is determined by the quantity of labor spent on it, the more idle and unskillful the laborer, the more valuable would his commodity be, be-

[1] From Karl Marx, *Capital*. Swan, Sonnenschein, Lowrey & Co., London, 1887. Vol. 1, Part 1, Chapter 1, Section 1.

cause more time would be required in its production. The labor, however, that forms the substance of value, is homogeneous human labor, expenditure of one uniform labor-power. The total labor-power of society, which is embodied in the sum total of the values of all commodities produced by that society, counts here as one homogeneous mass of human labor-power, composed though it be of innumerable individual units. Each of these units is the same as any other, so far as it has the character of the average labor-power of society, and takes effect as such; that is, so far as it requires for producing a commodity no more time than is needed on an average, no more than is socially necessary.

but value is measured only by the amount of labor which is *socially necessary* to produce the commodity in question.

The labor-time socially necessary is that required to produce an article under the normal conditions of production, and with the average degree of skill and intensity prevalent at the time. The introduction of power looms into England probably reduced by one-half the labor required to weave a given quantity of yarn into cloth. The hand-loom weavers, as a matter of fact, continued to require the same time as before; but for all that, the product of one hour of their labor represented after the change only half an hour's social labor, and consequently fell to one-half its former value.

An example.

We see then that that which determines the magnitude of the value of any article is the amount of labor socially necessary, or the labor-time socially necessary, for its production. . . . Commodities, therefore, in which equal quantities of labor are embodied, or which can be produced in the same time, have the same value. . . .

Conclusion.

134. The laborer creates all value [1]

Marx built a complex system of socialist philosophy upon the principle stated in the foregoing selection. Omitting the complexities and qualifications which accompany his further statement of this principle, he believed commodities to have value in proportion as socially necessary labor has been expended upon them. This conclusion arrived at, Marx next asserted that it is the laborer, and the laborer alone, who is responsible for the value of commodities. This second point he developed in the following language:

Significance of the principle stated above.

[1] From Karl Marx, *Value, Price and Profit.* Chas. H. Kerr & Co., Chicago, 1908, Chapter VIII.

Suppose a laborer needs three shillings to support himself for a single day, and that he can earn this amount in six hours.

Now suppose that the average amount of the daily necessaries of a laboring man require *six hours of average labor* for their production. Suppose, moreover, six hours of average labor to be also realized in a quantity of gold equal to three shillings. Then three shillings would be the *price*, or the monetary expression of the *daily value* of that man's *laboring power*. If he worked daily six hours he would daily produce a value sufficient to buy the average amount of his daily necessaries, or to maintain himself as a laboring man.

He sells his laboring power to the capitalist for three shillings.

But our man is a wages laborer. He must, therefore, sell his laboring power to a capitalist. If he sells it at three shillings daily, or eighteen shillings weekly, he sells it at its value. Suppose him to be a spinner. If he works six hours daily he will add to the cotton a value of three shillings daily. This value, daily added by him, would be an exact equivalent for the wages, or the price of his laboring power, received daily. But in that case *no surplus value* or *surplus produce* whatever would go to the capitalist. Here, then, we come to the rub.

But the latter makes the laborer work more than three shillings' worth, *i.e.* more than six hours.

In buying the laboring power of the workmen, and paying its value, the capitalist, like every other purchaser, has acquired the right to consume or use the commodity bought. You consume or use the laboring power of a man by making him work, as you consume or use a machine by making it run. By buying the daily or weekly value of the laboring power of the workman, the capitalist has, therefore, acquired the right to use or make that laboring power work during the *whole day or week*. . . .

[Now] the *value* of the laboring power is determined by the quantity of labor necessary to maintain or reproduce it, but the *use* of that laboring power is only limited by the active energies and physical strength of the laborer. The daily or weekly *value* of the laboring power is quite distinct from the daily or weekly exercise of that power, the same as the food a horse wants and the time it can carry the horseman are quite distinct. The quantity of labor by which the value of the workman's laboring power is limited forms by no means a limit to the quantity of labor which his laboring power is apt to perform.

Take the example of our spinner. We have seen that, to reproduce daily his laboring power, he must daily reproduce a value of

three shillings, which he will do by working six hours daily. But this does not disable him from working ten or twelve or more hours a day. But by paying the daily or weekly *valuc* of the spinner's laboring power the capitalist has acquired the right of using that laboring power during the *whole day or week*. He will, therefore, make him work say, daily, *twelve hours*. *Over and above* the six hours required to replace his wages, or the value of his laboring power, he will, therefore, have to work *six other hours*, which *surplus labor* will realize itself in a *surplus value* and a *surplus produce*.

The laborer may earn his wages in six hours and yet be obliged to work, say, another six hours to create a surplus product for the capitalist.

If our spinner, for example, by his daily labor of six hours, added three shillings' value to the cotton, a value forming an exact equivalent to his wages, he will, in twelve hours, add six shillings' worth to the cotton, and produce a *proportional surplus of yarn*. As he has sold his laboring power to the capitalist, the whole value or produce created by him belongs to the capitalist, the owner . . . of his laboring power. By advancing three shillings, the capitalist will, therefore, realize a value of six shillings, because, advancing a value in which six hours of labor are crystallized, he will receive in return a value in which twelve hours of labor are crystallized.

By this process the capitalist

By repeating this same process daily, the capitalist will daily advance three shillings and daily pocket six shillings, one-half of which will go to pay wages anew, and the other half of which will form *surplus value*, for which the capitalist pays no equivalent. It is this *sort of exchange between capital and labor* upon which capitalistic production, or the wages system, is founded. . . .

lives on the produce which the laborer alone creates.

135. The capitalist exploits the laborer [1]

In the above selection Marx claims that although both laborers and capitalists are intimately connected with the productive process, the value of the commodities produced is due entirely to the activities of the laborers. The capitalist is a parasite who has fastened himself upon the laborers and lives by exploiting them. In the celebrated *Communist Manifesto*, published in 1848 by Karl Marx and Frederick Engels, this view is developed as follows:

The capitalist a parasite.

Owing to the extensive use of machinery and to the division of

[1] From Karl Marx and Frederick Engels, *The Communist Manifesto*. London, 1848.

Capitalism means low wages.

labor, the work of the proletarians[1] has lost all individual character, and, consequently, all charm for the workman. He becomes an appendage of the machine, and it is only the most simple, most monotonous, and most easily acquired knack, that is required of him. Hence, the cost of production of a workman is restricted almost entirely to the means of subsistence that he requires for his maintenance and for the propagation of his race. But the price of a commodity, and therefore also of labor, is equal to its cost of production. In proportion, therefore, as the repulsiveness of the work increases, the wage decreases. . . .

The laborer is a slave.

Modern industry has converted the little work-shop of the patriarchal master into the great factory of the industrial capitalist. Masses of laborers, crowded into the factory, are organized like soldiers. As privates of the industrial army they are placed under the command of a perfect hierarchy of officers and sergeants. Not only are they slaves of the bourgeois class, and of the bourgeois State, they are daily and hourly enslaved by the machine, by the overlooker, and, above all, by the individual bourgeois manufacturer himself. . . .

No sooner is the exploitation of the laborer by the manufacturer so far at an end that he receives his wages in cash, than he is set upon by the other portions of the bourgeoisie, the landlord, the shopkeeper, the pawnbroker, etc.

The lower strata of the middle class tend to sink into the proletariat.

The lower strata of the middle class — the small tradespeople, shopkeepers, and retired tradesmen generally, the handicraftsmen and peasants — all these sink gradually into the proletariat, partly because their diminutive capital does not suffice for the scale on which modern industry is carried on, and is swamped in the competition with the large capitalists, [and] partly because their specialized skill is rendered worthless by new methods of production. Thus the proletariat is recruited from all classes of the population. . . .

The modern laborer, . . . instead of rising with the progress of industry, sinks deeper and deeper below the conditions of existence

[1] Socialists make extended use of the terms "proletariat" and "bourgeoisie." By proletariat Marx meant the class of modern wage-laborers, who, having no means of production of their own, are reduced to selling their labor-power in order to live. By bourgeoisie is meant the class of modern capitalists, the owners of the means of production, and the employers of wage-earners.

of his own class. He becomes a pauper, and pauperism develops more rapidly than population and wealth. And here it becomes evident that the bourgeoisie is unfit any longer to be the ruling class in society and to impose its conditions of existence upon society as an over-riding law. It is unfit to rule because it is incompetent to assure an existence to its slave within his slavery, because it cannot help letting him sink into such a state that it has to feed him instead of being fed by him. Society can no longer live under this bourgeoisie; in other words, its existence is no longer compatible with society. . . .

The bourgeoisie as unfit rulers of "slaves."

136. The doctrine of class struggle[1]

It is clear, from the foregoing selection, that Marx and Engels considered the interests of the working classes to be in opposition to those of the group which they call capitalistic. Indeed, they went further, and declared that all history is the record of struggles between various classes. This tendency to class struggle they attempted to trace historically, and to connect with the present-day antagonism between the "wage-slave" and the capitalist. In the following selection, Marx and Engels develop the idea of class struggle, and conclude that it must inevitably result in the forcible overthrow of capitalism by the working clases:

The doctrine of class struggle and its inevitable result.

The history of all hitherto existing society is the history of class struggles.

Universality of class struggle.

Freeman and slave, patrician and plebeian, lord and serf, guild-master and journeyman, in a word oppressor and oppressed, stood in constant opposition to one another, carried on an uninterrupted, now hidden, now open fight, that each time ended, either in the revolutionary reconstitution of society at large, or in the common ruin of the contending classes. . . .

Our epoch, the epoch of the bourgeois, possesses, however, this distinctive feature: it has simplified the class antagonisms. Society as a whole is more and more splitting up into two great hostile camps, into two great classes directly facing each other: bourgeoisie and proletariat. . . .

Class struggle under capitalism,

The bourgeoisie, wherever it has got the upper hand, has put

[1] From Karl Marx and Frederick Engels, *The Communist Manifesto*. London, 1848.

and the part played therein by the bourgeoisie.

an end to all feudal, patriarchal, idyllic relations. It has pitilessly torn asunder the motley feudal ties that bound man to his "natural superiors," and has left remaining no other nexus between man and man than naked self-interest, callous, "cash payment." . . . It has resolved personal worth into exchange value, and in place of the numberless indefeasible chartered freedoms, has set up that single, unconscionable freedom — free trade. In one word, for exploitation, veiled by religious and political illusions, it has substituted naked, shameless, direct, brutal exploitation. . . .

The proletariat destined to destroy the bourgeoisie.

The weapons with which the bourgeoisie felled feudalism to the ground are now turned against the bourgeoisie itself. But not only has the bourgeoisie forged the weapons that bring death to itself; it has also called into existence the men who are to wield those weapons — the modern working class — the proletarians. . . .

Early stages of the struggle.

The proletariat goes through various stages of development. With its birth begins its struggle with the bourgeoisie. At first the contest is carried on by individual laborers, then by the work people of a factory, then by the operatives of one trade, in one locality, against the individual bourgeois who directly exploits them. . . . At this stage the laborers still form an incoherent mass scattered over the whole country, and broken up by their mutual competition. . . .

The struggle becomes national.

Now and then the workers are victorious, but only for a time. The real fruit of their battles lies not in the immediate result but in the ever improved means of communication that are created in modern industry and that place the workers of different localities in contact with one another. It was just this contact that was needed to centralize the numerous local struggles, all of the same character, into one national struggle between classes. . . .

Function of the Communists.

In what relation do the Communists stand to the proletarians as a whole? . . . The immediate aim of the Communists is the same as that of all the other proletarian parties: formation of the proletariat into a class, overthrow of the bourgeois supremacy, conquest of political power by the proletariat. . . .

The call for revolution.

In short, the Communists everywhere support every revolutionary movement against the existing social and political order of things. . . .

The Communists disdain to conceal their views and aims. They openly declare that their ends can be attained only by the forcible

overthrow of all existing social conditions. Let the ruling class tremble at a Communistic revolution. The proletarians have nothing to lose but their chains. They have a world to win.

Workingmen of all countries unite!

137. The aims of socialism[1]

Fundamental unity of purpose among the various socialist groups.

Since the days of Marx socialism has broken up into a large number of groups, known under widely varying names, and professing principles which show considerable diversity. And yet the teachings of these various organizations are fundamentally the same. In every case the doctrines of Karl Marx constitute the basis of these teachings, and in every case the fundamental aim of socialism is to abolish society as it exists to-day and to install in its place a society based upon socialist principles. Something of the nature of the aims of American socialism is indicated by the following extracts from official statements of two American socialist groups:

[*Preamble to the Constitution of the Socialist Party of America.*]

Preamble to the constitution of the Socialist Party of America:

[This organization] is the political expression of the interests of the workers in this community, and is part of the international working-class movement.

The economic basis of present-day society is the private ownership and control of the socially necessary means of production, and the exploitation of the workers who operate these means of production for the profit of those who own them.

The basis of class struggle.

The interests of these classes are diametrically opposed. It is the interest of the capitalist class to maintain the present system and to obtain for themselves the largest possible share of the product of labor. It is the interest of the working class to improve their conditions of life and get the largest possible share of their own product so long as the present system prevails, and to end this system as quickly as they can.

Insofar as the members of the opposing classes become conscious of these facts, each strives to advance its own interest as against the other. It is this active conflict which we describe as class struggle.

[1] From the Socialist Party of America, *Preamble to the Constitution;* and from the United Communist Party, *Statement of Principles Adopted in* 1920.

The capitalist class, by controlling the old political parties, controls the powers of the State and uses them to secure and entrench its position. Without such control of the State its position of economic power would be untenable. The workers must wrest the control of the government from the hands of the masters and use its powers in the upbuilding of the new social order — the coöperative commonwealth.

The need for political and

The Socialist Party seeks to organize the working class for independent action on the political field, not merely for the betterment of their conditions, but also and above all with the revolutionary aim of putting an end to exploitation and class rule. Such political action is absolutely necessary to the emancipation of the working class, and the establishment of genuine liberty for all.

economic organization.

To accomplish this aim, it is necessary that the working class be powerfully and solidly organized also on the economic field, to struggle for the same revolutionary goal; and the Socialist Party pledges its aid in the task of promoting such industrial organization and waging such industrial struggle for emancipation.

The fundamental and

The fundamental aim of the Socialist Party is to bring about the social ownership and democratic control of all the necessary means of production — to eliminate profit, rent and interest, and make it impossible for any to share in the product without sharing the burden of labor — to change our class society into a society of equals, in which the interest of any will be the interest of all.

subordinate aims of the Socialist Party of America.

As subordinate and accessory to this fundamental aim, it supports every measure which betters the conditions of the working class, and which increases the fighting power of that class within the present system.

[*Statement of Principles Adopted in 1920 by the United Communist Party.*]

Socialist desires with regard

Under capitalism the very development of higher productivity is inevitably accompanied by an intensification of the bondage and oppression of the workers. The machines invented to serve humanity have become the instruments for enslavement of the producing masses.

[Socialism] will release all the productive energies for the common

welfare of all the people. In place of profit as the animating impulse to production must stand the needs and enjoyments of the producing masses. to production,

The right and the obligation to labor — service toward the common enjoyment of all — this shall be the basis of citizenship under the [socialist] régime.

Education of the masses toward better social service and toward higher appreciation of the enjoyments of life is the foremost item in the [socialist] transformation. This education must go to the adult workers, who have so long toiled in darkness, as well as to all the children of the nation. and education.

Education under [socialism], as already in process of development in Russia, takes account of the physical welfare of the children along with their mental training. Under the blockade conditions compelling the rationing of food, it has been the children who have always been given the preference. Tens of thousands of children of the poor in the big cities have been fed on a communal basis. . . . The general educational system includes periods for all city children in the country, on the socialized agricultural estates, while the village children, in turn, will be brought periodically into the cities, and in this way education is made to include contact with every phase of the industrial, institutional and cultural life of the nation. The example of bolshevism in Russia.

Art, music, the stage — all the cultural advantages which have been held aloof for the enjoyment of the privileged few, and in their more vulgar forms have been used to deceive and cajole the masses — become [under socialism] the institutions of the working masses. Art is thereby released from its prostitution to exploiting interests and becomes imbued with new inspiration and vitality. The promise of socialism.

In a word, the working class will have at its disposal all that civilization has thus far produced for the enhancement of individual and social life. The better organization of the industrial and social system can in a single generation, with the advanced technique and science of to-day, achieve more toward the eradication of disease, crime, depravity and superstition than has been accomplished in all the prior centuries together.

138. Socialism in action[1]

Modern socialism first applied on a nation-wide scale in 1917.

The foregoing selection may be taken as illustrative of the aims of socialism, though it should be remembered that in the matter of "aims" or "programs" socialist groups differ widely among themselves. It should be remembered, too, that while the professed aims of socialism afford a basis of criticism, we are not really in a position to understand the nature of socialism until we have examined the manner in which socialist doctrine has actually been applied. Various parts of the world and various epochs in history have witnessed socialist experiments, but until the period of the Great War the theory of modern socialism had never been applied on a nation-wide scale. It is of interest, therefore, to note that in the autumn of 1917 a socialist group, the Bolshevists, introduced socialism into Russia. The following selections from the Bolshevist constitution, adopted July 10, 1918, will give an idea of how socialist doctrine was actually installed in that country:

A. Article One. Declaration of Rights of the Laboring and Exploited People

Chapter One

Russia declared to be a Soviet Republic.

1. Russia is declared to be a Republic of the Soviets of Workers', Soldiers', and Peasants' Deputies. All the central and local power belongs to these Soviets.

2. The Russian Soviet Republic is organized on the basis of a free union of free nations, as a federation of Soviet national republics.

Chapter Two

The Congress of this Soviet Republic

3. Bearing in mind as its fundamental problem the abolition of the exploitation of men by men, the entire abolition of the division of the people into classes, the suppression of exploiters, the establishment of a socialist society, and the victory of socialism in all lands, the Third All-Russian Congress of Soviets of Workers', Soldiers' and Peasants' Deputies further resolves:

[1] From the Russian Socialist Federated Soviet Republic, *Constitution*. Article I, Chapters I and II, and Article IV, Chapter XIII.

(*a*) For the purpose of attaining the socialization of land, all private property in land is abolished, and the entire land is declared to be national property and is to be apportioned among agriculturists without any compensation to the former owners, in the measure of each one's ability to till it.

declares abolished the private ownership of land.

(*b*) All forests, treasures of the earth, and waters of general public utility, all equipment whether animate or inanimate, model farms and agricultural enterprises, are declared to be national property.

Other industrial resources are also declared to be national property.

(*c*) As a first step toward complete transfer of ownership to the Soviet Republic of all factories, mills, mines, railways, and other means of production and transportation, the Soviet law for the control by workmen and the establishment of the Supreme Soviet of National Economy is hereby confirmed, so as to insure the power of the workers over the exploiters.

(*d*) With reference to international banking and finance, the Third Congress of Soviets is discussing the Soviet decree regarding the annulment of loans made by the Government of the Czar, by landowners and the bourgeoisie, and it trusts that the Soviet Government will firmly follow this course until the final victory of the international workers' revolt against the oppression of capital.

Declarations with regard to loans

(*e*) The transfer of all banks to the ownership of the Workers' and Peasants' Government, as one of the conditions of the liberation of the toiling masses from the yoke of capital, is confirmed.

and banks.

(*f*) Universal obligation to work is introduced for the purpose of eliminating the parasitic strata of society and organizing the economic life of the country.

(*g*) For the purpose of securing the working class in the possession of complete power, and in order to eliminate all possibility of restoring the power of the exploiters, it is decreed that all workers be armed, and that a Socialist Red Army be organized and the propertied class disarmed. . . .

A Socialist Red Army and its purpose.

Chapter Thirteen (*Article Four*)

64. The right to vote and to be elected to the Soviets is enjoyed by the following citizens of both sexes, irrespective of religion, nationality, domicile, etc., of the Russian Socialist Federated Soviet Re-

The suffrage is limited to certain enumerated groups,

public, who shall have completed their eighteenth year by the day of election:

(*a*) All who have acquired the means of livelihood through labor that is productive and useful to society, and also persons engaged in housekeeping which enables the former to do productive work, *i.e.*, laborers and employees of all classes who are employed in industry, trade, agriculture, etc., and peasants and Cossack agricultural laborers who employ no help for the purpose of making profits.

(*b*) Soldiers of the army and navy of the Soviets.

(*c*) Citizens of the two preceding categories who have in any degree lost their capacity to work.

while a number of important classes are specifically denied the ballot.

65. The following persons enjoy neither the right to vote nor the right to be voted for, even though they belong to one of the categories enumerated above, namely:

(*a*) Persons who employ hired labor in order to obtain from it an increase in profit.

(*b*) Persons who have an income without doing any work, such as interest from capital, receipts from property, etc.

(*c*) Private merchants, trade and commercial brokers.

(*d*) Monks and clergy of all denominations.

(*e*) Employees and agents of the former police, the gendarme corps, and the Okhrana (Czar's secret service), also members of the former reigning dynasty.

(*f*) Persons who have in legal form been declared demented or mentally deficient, and also persons under guardianship.

(*g*) Persons who have been deprived by a Soviet, of their rights of citizenship because of selfish or dishonorable offenses, for the period fixed by the sentence.

Questions on the foregoing Readings

1. What theory constitutes the basis of all socialist doctrine?
2. What great socialist leader recognized this fact?
3. What, in essence, is Marx's theory of value?
4. Explain what Marx means by "socially necessary" labor-time.
5. What is Marx's conclusion with regard to the labor theory of value?
6. What statement by Marx follows logically from his acceptance of the labor theory of value?
7. Explain how the laborer produces a surplus.

8. Explain how the capitalist secures this surplus produce.
9. What does Marx say as to wages under capitalism?
10. What does he mean by saying that the laborer is a slave?
11. Distinguish between the terms "proletariat" and "bourgeoisie."
12. What classes of society, according to Marx, tend to sink into the proletariat?
13. What is the relation of history to the doctrine of class struggle?
14. What part have the bourgeoisie played in the class struggle?
15. What is the function of the laboring class with regard to the class struggle?
16. Explain the aims and methods of Communism (or socialism), as stated by Marx and Engels.
17. What group does the Socialist Party of America claim to represent?
18. For what purpose does this party urge the political and economic organization of the working class?
19. What is the fundamental aim of the Socialist Party of America?
20. Outline the desires of the socialists with regard to production and education.
21. What claim is advanced by the United Communist Party with reference to the ability of socialism to improve the lot of humanity?
22. When was modern socialism first applied on a nation-wide scale?
23. Discuss the nationalization of property as provided for by the Bolshevist constitution.
24. For what purpose was a Socialist Red Army created?
25. Discuss the nature of the suffrage under the Bolshevist constitution.

CHAPTER XXIV

THE CASE FOR SOCIALISM

139. Socialism seeks to bring order out of chaos [1]

H. G. Wells

We have examined into the general nature of socialism, and we may now inquire into some of the more important arguments which may be advanced for and against the movement. Leaving until the next chapter the case *against* socialism, we shall confine ourselves, in this chapter, to what may properly be called the case *for* socialism. By the terms "case for socialism" and "case against socialism," however, we do not mean such a presentation of socialism as would be given by an ardent advocate of socialism on the one hand, and a violent opponent of the doctrine on the other. We mean, rather, to approach the subject with perfect impartiality, to examine it calmly, and to present on either side the chief arguments which an unprejudiced student must admit constitute the case for and against socialism. Turning now to the case for socialism, let us notice that an element of strength in socialism is its intention to effect a systematic reorganization of society. In the following selection the well-known English publicist, H. G. Wells, calls this the fundamental idea upon which socialism rests:

on the fundamental idea underlying socialism.

The fundamental idea upon which socialism rests is the same fundamental idea as that upon which all real scientific work is carried on. It is the denial that chance impulse and individual will and happening constitute the only possible methods by which things may be done in the world. It is an assertion that things are in their nature orderly; that things may be computed, may be calculated upon and foreseen. In the spirit of this belief, science aims at a systematic knowledge of material things. . . . The socialist has just that same faith in the order, the knowableness of things, and the power of men

[1] From H. G. Wells, *New Worlds for Old*. The Macmillan Co., New York, 1913; pp. 21–25.

in coöperation to overcome chance; but to him, dealing as he does with the social affairs of men, it takes the form not of schemes for collective research but for collective action for all the social activities of man of a comprehensive design. While science gathers knowledge, socialism . . . develops a general plan of social life. Each seeks to replace disorder by order. . . .

The demands which science makes upon men

These two great processes of human thought are further in sympathy in the demand they make upon men to become less egotistical and isolated. The whole difference of modern scientific research from that of the Middle Ages, the secret of its immense successes, lies in its collective character, in the fact that every fruitful experiment is published, every new discovery of relationships explained. In a sense scientific research is a triumph over natural instinct, over that mean instinct that makes men secretive, that makes a man keep knowledge to himself and use it slyly to his own advantage. The training of a scientific man is a training in what an illiterate lout would despise as a weakness, it is a training in blabbing, in blurting things out, in telling just as plainly as possible and as soon as possible what he has found. . . .

are similar to those which socialism makes upon men.

And that, too, socialism preëminently demands. It applies to social and economic relationships the same high rule of frankness and veracity, the same subordination of purely personal considerations to a common end that science demands in the field of thought and knowledge. Just as science aims at a common organized body of knowledge to which all its servants contribute and in which they share, so socialism insists upon its ideal of an organized social order which every man serves and by which every man benefits. Their common enemy is the secret-thinking, self-seeking man. Secrecy, subterfuge, and the private gain: these are the enemies of socialism and the adversaries of science. . . .

The socialist points out that society lacks a constructive design.

Now the socialist, inspired by this conception of a possible, frank and comprehensive social order to which mean and narrow things must be sacrificed, attacks and criticizes the existing order of things at a great number of points, and in a great variety of phraseology. At all points, however, you will find upon analysis that his criticism amounts to a declaration that there is wanting a sufficiency of *constructive design*. That in the last resort is what he always comes to.

What the socialist wants.

He wants a complete organization for all those human affairs that are of collective importance. He says, to take instances almost haphazard, that our ways of manufacturing a great multitude of necessary things, of getting and distributing food, of conducting all sorts of business, of . . . rearing children, of permitting diseases to engender and spread, are chaotic and undisciplined; so badly done that here is enormous hardship and there enormous waste; here excess and degeneration, and there privation and death. He declares that for these collective purposes, in the satisfaction of these universal needs, mankind presents the appearance and follows the methods of a mob when it ought to follow the methods of an army. In place of disorderly individual effort, each man doing what he pleases, the socialist wants organized effort and a plan. And while the scientific man seeks to make an orderly map of the half-explored wilderness of fact, the socialist seeks to make an orderly plan for the half-conceived wilderness of human effort. . . .

140. Production in the socialist state [1]

Socialism aims at a scientific reorganization of production.

The orderly arrangement contemplated by socialism would touch every important phase of human life. The production of commodities, for example, would be carried on by methods less haphazard and disorderly than those which at present exist. Indeed, one of the strongest attractions of the socialist doctrine is its promise to reorganize industrial production on a scientific plan. Many anti-socialists and non-socialists scoff at this promise, but a number of shrewd and unbiased observers believe that production under socialism might prove more satisfactory than has production under the competitive system. In the following selection a favorable view of production in the socialist state is presented by an American economist and a non-socialist, Professor Richard T. Ely:

The proposal of the socialist.

Socialists call the present production planless, in contrasting production as a whole with the organized system of a single great factory. They propose to substitute for present planlessness of production at large, regular, orderly, systematic production.

This is a very strong point in the program of socialism, and the

[1] From Richard T. Ely, *Socialism and Social Reform.* Thomas Y. Crowell Co. New York, 1894; pp. 123–128.

gains resulting therefrom would be many. Not the least important of these would be the limitation of the chance element in production. The chance element is characteristic, either of production on a small scale, or production imperfectly organized. When we have to do with large masses of social phenomena, or with productive forces working on a vast scale, the chance element is reduced to such low terms that it may be almost said to disappear. . . .

Socialism might limit the chance element in production.

When we consider a single farmer growing wheat in Minnesota, or a planter raising corn in Virginia, the chance element is prominent. Drought may destroy the wheat crop in Minnesota, and flood the corn crop in Virginia. Yet, when we take the country as a whole, the fluctuations due to changes in seasons and other causes are reduced to low terms. If the wheat crop is deficient in one part of the country, it is likely to be abundant elsewhere, and a general average maintained. The same is true with respect to other crops. The larger the scale on which production is organized, the less the risk, because irregularities in one direction or the other are more likely to balance one another. . . .

An example.

The present planlessness of production may be viewed from still another standpoint. At the present time the wheat grower produces for an uncertain, capricious market, and his destiny is only to an inconsiderable extent within his own control. Farmer A observes that the price of wheat has been high for two or three years, and he thinks that wheat is a good crop to raise. He begins to cultivate wheat on a large scale, but he does not know what rival producers are doing or are going to do. Farmer B and Farmer C and thousands of others have made the same observation, and they all begin growing wheat. The result is a large over-production of wheat, and loss to the producers. Farmer A then decides that he will give up wheat and try sheep-raising, because mutton and wool have for some time been high; but thousands of other farmers have at the same time come to this conclusion, and sheep-raising is carried too far. Mutton and wool fall in price, and again there is loss to individuals, and a loss to society as a whole, because economic energy has not been most advantageously expended. . . .

Capitalism defective in that individuals produce without knowledge of what their competitors are doing.

The socialist makes a strong point when he bids us contrast with this planlessness of production, resulting in large loss and immense

What the socialist proposes to do.

human suffering, the regular, orderly, systematic production which he advocates. He proposes to ascertain demand, and organize the forces of production as a unit to meet this demand, but to produce no more than is needed. It can be told in advance, with an approximation of accuracy, how many bushels of wheat will be needed in the United States the coming year; and with a like approximation of accuracy, it may be told how many acres of wheat will supply this need.

Socialism might be expected to reduce the wastes due to mistaken undertakings,

Wastes by mistaken undertakings are a necessary feature of the present competitive order of society; but they might be expected to be largely reduced under socialism. . . . What is more uncertain than the result of a new telegraph company or railway company in the United States? The uncertainty is great on account of the presence of competition. If we turn our attention, however, to a country like Germany, where there is no competition in telegraphing or in the railway industry, because both are government enterprises, we shall find that it is easy to tell in advance very nearly what will be the result of an extension of the telegraph or the railways. It is possible to take into account very nearly all the elements involved in the calculation, both businesses becoming relatively simple the moment the competitive element is removed, although with this element present they are extremely complicated. The same holds, although in less degree, with respect to manufactures and mercantile undertakings. . . .

as well as those due to crises and trade depressions.

Another claim of socialism is one which . . . is peculiarly effective. It is maintained that the wastes from crises and industrial depressions will disappear, and this claim is well founded because crises and industrial depressions are part and parcel of the competitive system of industry, and would cease to afflict society with the abolition of the competitive system. . . . The losses in a single year of industrial crises, and consequent industrial stagnation, amount to hundreds of millions of dollars, and involve untold misery to millions of human beings. Capital is idle; labor is unemployed; the production of wealth ceases; want and even starvation come to thousands . . . and all this happens because the machinery of the industrial system has been thrown out of gear by the operation of some force or another, which, so far as we can judge from experience, is an essential part of the order of competition. . . .

141. Distribution of wealth under socialism[1]

The distribution of wealth a chief concern of the socialist.

Many of the socialist's objections to the capitalistic system are based upon the fact that under our present industrial system, the distribution of wealth is manifestly unequal. The socialist lays great emphasis upon the distribution of wealth under a socialist régime, indeed, this problem may be said to be the chief concern of socialist philosophy. In the following selection Professor Ely points out the strong features of the socialist scheme of distribution:

The socialist plan of distribution to be commended.

We cannot fail to commend the aim of socialism to substitute an orderly and rational distribution of the social dividend, for that based on a struggle of private interests. This distribution, based upon the struggle of private interests, can satisfy no benevolent person who has intelligence to see what it means.

Deserving persons may be denied a proper satisfaction of their wants, while irresponsible persons waste wealth.

The idea of distribution is the fullest satisfaction of human wants; but at the present time very pressing ones go unsatisfied, while a few persons have such a superfluity that, to their own harm, they can satisfy every whim and caprice. You may find here a young girl who has rare artistic gifts, which on her own account, as well as on account of society, it is desirable she should be able to develop to the utmost, but by reason of poverty her powers languish, and she is obliged to turn to distasteful work for which she has no capacity; while on another street of the same city you can find a gilded youth, who, in a single night's debauch, will spend enough to his own undoing to give our talented poor girl the best opportunities which money can offer. Instances of this kind fall under our observation every day, and if any way can be discovered to remedy this wrong, it is certainly desirable that it should be known. The effort to mend the evil is indeed commendable.

Probably socialism could improve upon the present method of distributing wealth.

It is at least conceivable that a distribution of the social income by self-conscious social forces, would be productive of better results, for the nature of distribution would then depend upon the wisdom and integrity with which society performed its functions in this respect. Socialism, in its idea, is unquestionably compatible with a distribution of the national dividend, which would be more pro-

[1] From Richard T. Ely, *Socialism and Social Reform*. Thomas Y. Crowell Co., New York, 1894: DD. 139–142.

ductive of well-being than is the distribution we now witness. Socialism seeks a distribution which avoids the extremes of pauperism and plotocracy. This ideal is that of the Bible, as expressed in Agur's prayer, "Give me neither poverty nor riches; feed me with food convenient for me; lest I be full, and deny thee, and say, Who is the Lord? or lest I be poor, and steal, and take the name of my God in vain."

The nature of socialist distribution.

Socialists have directed special attention to distribution as considered from the standpoint of the wage-earner, but the wish for him is that he should cease to be a wage-earner, and become a partner in production. This is implied in the socialization of the instruments of production; but this common ownership of the instruments of production implies the distribution among the workers of that surplus above wages which is now allotted to rent, interest, and profits, for socialism proposes to lay hold of these shares in distribution and divide them among the producers.

Place of the employer in the socialist plan of distribution.

Socialistic distribution has also strength when it is viewed from the standpoint of other classes than the wage-earners. The employer, even if he may receive a smaller share, is free from the harrowing cares and anxieties which now beset him. The fear that he may lose his entire share in the wealth distributed (a fear often realized, as large producers annihilate small producers), ceases to torment him, for socialism, as we have already seen, provides an income for all members of society. It is not proposed that the full product of industry, without abatement of any sort, should go to the toiler, because it is desired that a share should be set aside for those who are incapable of themselves engaging in toil, as well as a share for replacement of capital and addition to capital.

The learned professions under socialist distribution.

When distribution is viewed from the standpoint of those engaged in the learned professions, socialism is not without its attractive features. Those professions are now over-crowded, largely because many, better adapted to mechanical pursuits, endeavor to push up into the learned professions to escape unpleasant conditions attending those occupations for which they are naturally adapted. This might be expected to cease, if agriculture and mechanical pursuits could be rendered more agreeable; and the anxiety of professional men for themselves, and often their still greater anxiety for their

children, would no longer perplex them by day and disturb their rest by night. . . .

142. Some invalid objections to socialism[1]

The question of whether or not socialism is practicable.

The case for socialism may be founded upon two types of arguments: first, arguments designed to bring out the positive attractions of socialism as contrasted with capitalism, and, second, arguments designed to overcome the claimed objections to socialism. In connection with this second type of argument, let us notice the controversy over the way in which socialism would work out in actual practice. Many socialists believe that the complete reorganization of society could be effected without any considerable difficulty; many opponents of socialism contend, on the other hand, that the difficulties of establishing a socialist commonwealth are so great as virtually to render the scheme impracticable. The truth probably lies somewhere between these two extreme views: some of the features of the proposed socialist commonwealth would appear to constitute insuperable obstacles; others could probably be overcome, and hence are invalid grounds for objecting to socialism. In the following selection, a non-socialist, Professor Frank W. Taussig, advances what he believes are some invalid grounds for objecting to socialism:

Some objections to socialism which are easily met.

It is said that the [socialist] scheme is too large, the difficulties of organization insuperable, the actual operation sure to break down because of the extent and complexity of the industrial problems.

The large-scale enterprises of modern times go far to dispose of [these] objections. The possibilities of organization have been proved to be immense. When we see how railways and industrial enterprises are successfully conducted on a vast scale under unified management, we cannot say that the mere difficulties of management and operation would be insuperable under socialism. In fact, many of the problems of production, exchange, transportation, would be simplified. Fluctuations and uncertainties would largely disappear. Only the inevitable irregularities of the seasons would have to be reckoned with. Overproduction of any one commodity could easily be set aright, by simply waiting until the existing supply was

[1] From Frank W. Taussig, *Principles of Economics*. The Macmillan Co., New York, 1921. Vol. II, pp. 480–482.

disposed of. There could be no ruinous under-bidding by frantic competitors, each rushing from market to market in the fear that the other would undersell. It is true that the system, order, regularity, which the socialists may fairly claim as belonging to their society, may mean also stagnation — the cessation not only of change, but of progress. This, however, amounts to saying, not that administration and management are impracticable, but that they would not be as progressive as they might be.

The valuation of commodities under socialism.

Again, there would seem to be no insuperable difficulties in the way of valuing commodities in the socialist state. The pricing of the goods on sale would involve, to be sure, not only accurate bookkeeping (of the cost-account sort), but the determination of the wages of the laborers engaged in the several branches of production. In other words, it would presuppose a scheme of distribution among the laborers. This as already intimated, and as will presently be further shown, is a crucial matter. But supposing the principle or standard to be settled, the next step (that of fixing a price for the goods produced by different kinds of labor or different combinations of labor) is not more troublesome than it is now for a great manufacturing establishment. Often enough, in existing industrial organization, figures of cost and price can be reached only with approximation to accuracy, and this reasonable approximation suffices.

The accumulation of capital under socialism.

Nor would "the accumulation of capital" be a matter of crucial difficulty. It would simply proceed by a different process from that of present society; not by savings and investments of individuals, but by the deliberate setting aside of part of the community's resources for new construction. As at present, it would depend on the existence of a surplus, an excess over what may be used for satisfying current wants. In this sense, there would be "abstinence" and saving in the socialist state. It would be "abstinence," however, not by a comparatively few, but by all. Each and every individual would have his present income curtailed somewhat, in order that provision might be made for adding to the outfit of the community. Success in making such a provision would depend, of course, on the possession of a fairly high level of income; that is, on an existing high productivity of labor. Given a sufficient present income, there would be no difficulty in setting aside something for addition to the community's

capital. The serious problem would be whether there would be continued progress and invention, not whether there would be the means for carrying out inventors' projects.

Socialism would not necessarily destroy personal liberty.

It is often said that socialism would be destructive of liberty. Yet for the great majority of mankind, freedom might be no less than it now is. Most men now find the nature of their occupations fixed for them. Their daily round is settled virtually without choice of their own. Change from one occupation to another of a similar grade would seem to be no more difficult of arrangement in the socialist state than in our own. If the dreams of the socialists come true, there would be shorter hours for all, and more leisure. But greater freedom in this sense is not unattainable in existing society. If the dreams of the non-socialists come true, toil will be less all-absorbing, free time more plentiful. For the mass of men, it is not clear that on the score of liberty there is a preponderance of gain under either system. . . .

143. Socialism intent upon human welfare[1]

Things as they are, and things as they might be.

One of the most important points in the case for socialism is that this doctrine seeks to safeguard and to advance human welfare. Of those who look with favor upon socialism, many claim that in every civilized country there is an amount of wealth sufficient to provide every one with the decencies and comforts of life, if only this wealth were equitably distributed. But the amount of wealth which actually exists is claimed by socialists to be small compared to the amount which we might have if labor were not misdirected. In the following passage this argument is continued by an English socialist, William Morris:

The individual has a right to

When men are organized so that their labor is not wasted, they will be relieved from the fear of starvation and the desire of domination, and will have freedom and leisure to look around and see what they really need.

Now something of that I can conceive for my own self, and I will lay my ideas before you, so that you may compare them with your own. . . . What is it that I need, therefore, which my surrounding circumstances can give me?

[1] From William Morris, *Signs of Change*. Longmans, Green & Co., London, 1903; pp. 18, 21–25, 28–29, 33–34.

good health,

Well, first of all I claim good health; and I say that a vast proportion of people in civilization scarcely even know what that means. To feel mere life a pleasure; to enjoy the moving of one's limbs and exercising one's bodily powers; to play as it were, with sun and wind and rain; to rejoice in satisfying the due bodily appetites of a human animal without fear of degradation or sense of wrong-doing; yes, and therewithal to be well formed, straight-limbed, strongly knit, expressive of countenance — to be, in a word, beautiful — that also I claim. If we cannot have this claim satisfied, we are but poor creatures after all. . . .

liberal education,

Now the next thing I claim is education. And you must not say that every . . . child is educated now; that sort of education will not answer my claim, though I cheerfully admit that it is something: something, and yet after all only class education. What I claim is liberal education; opportunity, that is, to have my share of whatever knowledge there is in the world according to my capacity or bent of mind, historical or scientific; and also to have my share of skill of hand which is about in the world, either in the industrial handicrafts or in the fine arts; picture painting, sculpture, music, acting, or the like. I claim to be taught, if I can be taught, more than one craft to exercise for the benefit of the community. You may think this a large claim, but I am certain it is not too large a claim if the community is to have any gain out of my special capacities, if we are not all to be beaten down to a dull level of mediocrity as we are now, all but the very strongest and toughest of us. . . .

abundant leisure, and

Again, the claim for education involves a claim for abundant leisure, which once more I make with confidence; because when once we have shaken off the slavery of profit, labor would be organized so unwastefully that no heavy burden would be laid on the individual citizens; every one of whom as a natural course would have to pay his toll of some obviously useful work. . . . In spite of our inventions, no worker works under the present system an hour the less on account of those labor-saving machines, so-called. But under a happier state of things they would be used simply for saving labor, with the result of a vast amount of leisure gained for the community to be added to that gained by the avoidance of the waste of useless luxury, and the abolition of the service of commercial war. . . .

pleasant work conditions.

The last claim I make for my work is that the places I work in, factories or workshops, should be pleasant, just as the fields where our most necessary work is done, are pleasant. Believe me there is nothing in the world to prevent this being done, save the necessity of making profits on all wares; in other words, the wares are cheapened at the expense of people being forced to work in crowded, unwholesome, squalid, noisy dens. . . .

Life should be pleasant, generous, and beautiful.

[My last claim is that] my life should be pleasant, generous, and beautiful; that I know is a large claim, but this I will say about it, that if it cannot be satisfied, if every civilized community cannot provide such surroundings for all its members, I do not want the world to go on; it is a mere misery that man has ever existed. I do not think it possible under the present circumstances to speak too strongly on this point. I feel sure that the time will come when people will find it difficult to believe that a rich community such as ours, having such command over external capital and Nature, could have submitted to live such a mean, shabby, dirty life as we do. . . .

Summary.

Well, I will now let my claims for decent life stand as I have made them. To sum them up in brief, there are: First, a healthy body; second, an active mind in sympathy with the past, the present, and the future; thirdly, occupation fit for a healthy body and an active mind; and fourthly, a beautiful world to live in. . . .

144. The moral strength of socialism [1]

To the socialist the brotherhood of man is very real.

Let us notice, finally, that socialism is strong on its moral side. Socialism proposes to make real the brotherhood of man. Now we have long heard of the so-called brotherhood of man, indeed, there is a general belief in the existence of this brotherhood. But when we observe how individuals treat one another in the affairs of everyday life, we are obliged to conclude that the phrase "brotherhood of man" is manifestly a hollow mockery. Of course, socialism may not be practicable, but to the finer groups of socialists, the brotherhood of man is something very real. Professor Ely continues the discussion as follows:

The endeavor of socialism is to carry out the principles of brother-

[1] From Richard T. Ely, *Socialism and Social Reform*. Thomas Y. Crowell Co., New York, 1894; pp. 147–151, 153–155.

"One for all; all for one."

hood in all the relations of life, by introducing a social system, in which the maxim shall obtain, "One for all; all for one." The central idea is that each one should contribute to the common welfare whatever his strength and capacity will permit, and that none shall be permitted to suffer for the lack of anything which he really needs, provided the resources of society are sufficient to satisfy the need. . . .

Harmony in industrial relations.

It is a natural corollary from the endeavor to make real the brotherhood of man in economic relations, that it proposes the establishment of a harmony of industrial interests. It is thought by socialists that the production of material goods for use rather than for exchange, will harmonize the interests of the members of industrial society, for then it will be to the interest of all, that there shall be a large and ample production of material goods of the best quality. . . . The arrangement which socialism contemplates is more like that which would hold in a family or among friends. If there is abundance and plenty for all, we rejoice under such circumstances. We say to each one, "Help yourself," and are glad that we are able to do so. . . .

It becomes clear, from all this, that socialism seeks to establish an environment favorable to the development of moral qualities in human beings; and unless this feature of socialism is carried so far as to make everything, or nearly everything, depend upon environment, it is unquestionably a strong characteristic of socialism. . . .

Socialism seeks to abolish all idle classes.

The structure of society, under socialism, would be such as to abolish necessarily the idle classes, and this constitutes a strong feature of socialism. No one, under socialism, can gain a livelihood without personal exertion; and the maxim of St. Paul, "He who will not work, neither shall he eat," would become of universal application. At the present time, we are making some attempt to abolish idleness on the part of poor people, but we have not seriously attacked the problem of the idle rich. Socialism is strong, then, because it attempts to abolish all idle classes, and idleness is morally pernicious.

Socialism might ennoble men.

Socialists claim that socialism would improve and elevate government, and would raise into prominence a nobler class of men. . . . If socialism could be made to work, it cannot be said that its claim, that it would bring into prominence a nobler class of men, and would produce nobler men, is unfounded. Those who have great fortunes, under our existing system, have such positions of prominence and

power that they cannot be ignored. People must do them honor, because they fear to do otherwise. . . . Socialists hold that, under socialism, elevation to positions of importance would be based upon moral qualifications, in part at least. They furthermore urge that the nature of public business is such that it is ennobling. A great leader in private business has his attention concentrated upon himself or upon a few stock-holders, whereas public life enlarges the horizon, and the right thinking person who administers public business, does so with reference to the good of the whole people. It may justly be urged that it is public and not private life which has given us a Washington, a Lincoln. . . .

Questions on the foregoing Readings

1. Who is H. G. Wells?
2. What is the fundamental idea upon which socialism rests?
3. What demands does science make upon men?
4. Compare science and socialism in this regard.
5. What does the socialist want?
6. What is one of the strongest attractions of the socialist doctrine?
7. What is meant by saying that socialism would reduce the "chance element in production"?
8. Illustrate the way in which individuals produce without knowledge of what their competitors are doing.
9. How does the socialist propose to overcome the evil results of this situation?
10. Why might socialism reduce the wastes due to mistaken undertakings?
11. What is the attitude of socialism toward the problem of distributing wealth?
12. Illustrate the statement that "deserving persons may be denied a proper satisfaction of their wants, while irresponsible persons waste wealth."
13. Could socialism improve upon the present distribution of wealth? Explain.
14. What would be the place of the employer under the socialist plan of distributing wealth?
15. Would the learned professions gain or lose under a socialist distribution of wealth? Explain.
16. What does Professor Taussig say as to the possibilities of organization in a socialist state?
17. How might goods be valued under socialism?
18. What can be said as to the accumulation of capital under socialism?
19. Would socialism restrict the liberty of the individual? Explain.

20. What, according to William Morris, has the individual a right to expect in the way of health?
21. Outline the claims of the individual (as advanced by William Morris) with respect to education and leisure.
22. Summarize what William Morris calls his "claims for decent life."
23. What is the attitude of socialism toward the brotherhood of man?
24. What is the attitude of socialism toward the idle classes?
25. Discuss the statement that "socialism might ennoble men."

CHAPTER XXV

THE CASE AGAINST SOCIALISM

145. The labor theory of value is untrue[1]

Importance of disproving the labor theory of value.

Let us turn, in this chapter, to the case against socialism. In an earlier chapter we saw that socialism is based primarily upon the labor theory of value. Opponents of socialism have accordingly declared that if the labor theory of value is disproved, the chief stone is removed from the foundation of socialism. In the following selection, an American economist and an opponent of socialism, Professor James Edward Le Rossignol, explains why the labor theory of value is untrue:

This theory does not account for the value of land,

[The labor theory of value, or the labor-cost theory, as it is often called], certainly does not account for the value of land, particularly of unimproved city lots. Such land can be exchanged for cotton, wheat, hats, silver, or gold, and must, therefore, have some property in common with them all, which is the cause and measure of its value. But it cannot be labor-cost, for land is a product of nature. . . .

nor for the value of commodities in the narrow, Marxian sense.

When we come to commodities in the narrow, Marxian sense of that word, we find innumerable exceptions to the supposed law that "commodities in which equal quantities of labor are embodied, or which can be produced in the same time, have the same value." Old coins, stamps, manuscripts, autographs, birds' eggs, fossils, and the thousand and one objects dear to the heart of collectors, are surely to be classed as commodities, although there is no discoverable relation between their market value and their cost of product as measured in labor-time. What was the labor-cost of the Sistine Madonna? What would be its cost of reproduction? What is the labor-cost of a rare stamp or coin? How much "congealed labor" is there in the egg of that extinct bird, the Great Auk, which sold some years ago

[1] From James Edward Le Rossignol, *Orthodox Socialism*. T. Y. Crowell & Co., New York, 1907; pp. 15, 17–20.

for the enormous sum of $1200. On the other hand, how many hours of human labor did it cost to build the pyramids, how many sighs and tears and drops of blood, and what is their intrinsic value to-day?

The theory does not explain the value of the works of authors, artists and inventors.

The works of authors, artists, and inventors are commodities in the strictest sense of that word, and yet their market value has no definite relation to the labor-time spent in their production. A popular novelist may receive $50,000 from the sale of a book written in six months, while his less fortunate brother, after spending six years of unrequited toil, must publish his book at his own expense. . . . He has not been able to produce a work of social necessity; therefore his labor-time is wasted, and does not determine the value of the product. . . .

Commodities subject to the caprice of fashion quickly lose their value when their usefulness is gone, no matter what their cost of production or reproduction. . . .

It fails to explain the value of agricultural produce.

Every farmer knows that the labor-cost theory fails to explain the value of agricultural produce. On some lands wheat may be grown at a cost of 50 cents a bushel; on poorer lands at 75 cents, $1, or $1.25, and yet the total supply, produced at various costs, may be sold on the same market at $1 a bushel. This law of varying costs applies to the production of all raw materials: grain, meat, leather, cotton, wool, sugar, lumber, iron, clay, gold, silver, and the rest, because of the fact that land of the best quality is limited in quantity. In fact, the land-cost of these commodities has as much to do with their value as their labor-cost. But neither land-cost, labor-cost, or capital-cost can be regarded as of prime importance in determining the value of the product, which is due first of all to utility, or the power which commodities have to satisfy human wants.

The value of staple manufactured goods is not explained by the labor theory of value,

Finally, the value of staple manufactured articles, factory products, such as cotton and woolen goods, boots and shoes, refined sugar, and steel rails, is not determined chiefly by their labor-cost. In the first place, the value of the raw material of which they are composed is not so determined. In the second place, their value as finished products is not determined solely by cost, which limits supply, nor by utility, which controls demand, but by both of these factors together. Utility and cost are the two factors which determine value, and of these utility is chief.

The business man, whose profits arise from an excess of revenue over expenditure, and whose losses come from an excess of expenditure over revenue, knows well that the value of his goods depends as much upon the demand of the market as upon cost of production to himself or his competitors. What he must first of all do is to supply an article which will satisfy some human want, otherwise he will not be able to sell. A useless article has no exchange value, no matter how great its cost. . . .

as the business man knows.

146. The laborer does not produce all wealth [1]

From the above extract it is clear, not that commodities have value in proportion as labor has been expended upon their production, but that they have value according as they possess utility and are scarce. The labor-theory of Marx is, therefore, untrue. From this it follows that we must also reject Marx's statement that the laborer produces all wealth. If some commodities are valuable, *i.e.* constitute wealth, without regard to the amount of labor expended upon them, then some wealth is created by some other agency or influence than labor acting alone. In the following extract a Russian student of socialism, Mr. Boris L. Brasol, attempts to substantiate this theoretical conclusion by reference to practical conditions:

We must reject Marx's statement that the laborer produces all wealth.

The erroneous assertion of Marx and his followers that labor is the sole producer of wealth becomes still more accentuated when we remember that the term "labor" in socialist theories is always connected with the proletarian class. In other words, the formula that labor is the sole producer of wealth, in the socialist's conception, must read as follows: "*Manual* labor is the sole producer of wealth."

How socialism interprets the word "labor."

Considering this dogmatic premise in relation to the problem of erecting a modern office-building, the following can be remarked:

Five hundred masons and five hundred carpenters, summoned to erect the Woolworth building, would be unable to cope with this task. The erection of a Woolworth building requires the knowledge and services of an architect, an engineer, a chemist, and a technologist. Those experts, who do not belong to labor in the Marxian sense, are as indispensable to the erection of a modern building as the carpenter

The need for expert direction of the workman.

[1] From Boris L. Brasol, *Socialism versus Civilization*. Chas. Scribner's Sons, New York, 1920; pp. 64–69.

and the mason. In one sense the expert is even more indispensable than the manual workman, because the latter can be replaced by the former, while the contrary is not true. The manual workman is unable to direct the activities of the expert, whereas the expert always directs the activities of the manual workman. . . .

Not two but four factors are involved in production.

Therefore, contrary to Marx's affirmation, we must realize that modern production is the result, not of two factors — labor and capital, the latter being but crystallized labor — but of at least four factors, namely, physical elements, labor in the limited sense of manual labor, mental labor of the expert and the manager, and capital. . . .

Thus, economic practice proves that production is by no means the result of only two factors referred to by Marx, namely, labor and capital. *Production is a process by which business ability directs the application of both mental and manual labor to the physical elements of capital.*

The confession of Mr. Hillquit.

Thus, we are logically compelled to repudiate Marx's assertion that labor is the sole producer of commodities. Moreover, recent socialist writers, even those of the most radical type — such as Mr. Hillquit — have admitted that Marx's assertion is wrong. In this connection Mr. Hillquit stated as follows: "It requires no special genius to demonstrate that all labor is not alike nor equally productive. It is still more obvious that common manual labor is impotent to produce the wealth of modern nations — that organization, direction, and control are essential to productive work in the field of modern production and are just as much a factor in it as mere physical effort."

His failure to circulate it among the working classes.

This is a good confession, but unfortunately Mr. Hillquit and his colleagues, both in Europe and in the United States, have never endeavored to make this point clear in the workmen's minds. On the contrary, whenever a socialist writer or a bolshevist agitator appeals to labor directly, we always hear the old tune of the Marxian song, to the effect that labor is the sole producer of wealth, that capital is nothing but crystallized labor, and that "all wealth is due to labor, therefore, to the laborer all wealth is due."

Such tactics are indeed mere hypocrisy. Notwithstanding all the concessions which the more recent socialist writers had to make to the opponents of socialism, they still profess to believe that manual

labor possesses the magic faculty of producing everything without the assistance of anybody or anything. Therefore, when it came to put the Marxian theory into practice, Mr. Trotzky did not hesitate . . . to exterminate in the most brutal manner some fifty per cent of the Russian railroad engineers and skilled workmen.

Insistence of socialists upon the labor theory of value.

It is a characteristic feature of modern production that no individual social group can produce commodities without the material, physical, or intellectual support of other social groups, so that all those social groups combined form the productive part of the population. Thus, modern production is based upon the coöperation of various social groups. The moment this coöperation has ceased, the whole process of production must necessarily break down, or at least experience a serious disturbance. . . .

Interdependence of the factors of production.

147. The masses are not reduced to wage slavery[1]

Both Karl Marx and his followers have exaggerated the extent to which the masses of the people were being reduced to "wage slavery." The impression given by socialists is that the great majority of individuals are miserable wage slaves, while all of the good things of life are controlled and utilized by a relatively small class of "capitalists." Marx predicted that as time went on the class of wage slaves would grow larger and more miserable, while the middle classes would tend to disappear, leaving a small group of exploiters in control of most wealth. These predictions have not come true. The industrialization of the country is increasing the number of wage-earners, but instead of sinking into misery, these groups are increasingly prosperous. The middle classes are not disappearing, but are growing. Legislation is checking the concentration of wealth in the hands of a few. The following extracts from a study by an American statistician, Dr. Alvin H. Hansen, demonstrate the falsity of the statement that the masses of the people are reduced to wage slavery:

The predictions of Marx have not come true.

	1870	1880	1890	1900	1910
Urban upper and middle class . .	10.4	11.4	15.1	16.2	19.2
Rural group	47.1	43.7	36.8	35.0	32.4
Urban workers	34.4	36.6	38.8	40.3	42.3
Unclassified	8.1	8.2	9.3	8.5	6.0

The increasing industrialization of the country.

[1] From the American Statistical Association, *Quarterly Publication*. New York, Vol. XVII, December, 1920; pp. 421–422.

The composition of the three groups

The increasing industrialization of the country and the relatively declining importance of agriculture are indicated in Table III. Here the gainfully employed population is grouped under three categories, if we omit from our consideration that portion designated as unclassified.

The first group includes the proprietors and officials, the lower salaried and professional classes. It is the "white collar" urban population, not all even moderately well circumstanced, but constituting on the whole the middle and upper urban class.

The second group is composed of all gainfully employed agriculturists — the farmers, tenants, and farm laborers. This group represents what remains of the old type of American individualists. The industrious and frugal tenant in most cases still becomes in time, though with increasing difficulty, a farm owner. The farm laborer, with the exception of the relatively migratory class, hopes to save enough to set up as an independent tenant. Getting on is still largely a matter of individual push and initiative. True, the problems of organization and control of markets loom larger and larger, but the road to independence and advancement is still open, even though it is not so easy and broad as before.

enumerated in Table III.

The third class is composed of urban workers — the industrial wage-earners and servants. They are for the most part shut up in the wage system. If they are to better their condition they must do so not by way of escape to something else, but by improvement of their lot as wage-workers.

Decline in the size of the farming group.

The farming group is being increasingly cut into on one side by the business, salaried and professional group, and on the other side by the industrial wage-earners. The relative growth of the former group would seem to be a healthy sign, but it should be noted that a large part of this growth, nearly a half, in fact, is due to the rapid increase of the lower salaried employees, whose position is certainly not very desirable. Further than that, not only is the rural group declining in relative importance, but within that group itself the opportunities for advancement are narrowing down, as has already been shown, because of the encroachment of tenants and farm laborers upon the farm-owning class.

Yet in spite of these tendencies it is surprising to find what a

large proportion of the gainfully employed population are business men, farmers and professional men. [The following table] shows that in 1910 about 38 per cent still belonged to this independent class:

38% of our gainfully employed population are still independent.

	1870	1880	1890	1900	1910
Proprietary and independent class .	44.3	43.3	41.5	39.6	37.9
Rural and urban working class . .	47.6	48.4	49.2	51.9	56.0
Unclassified	8.1	8.2	9.3	8.5	6.0

Disregarding again the unclassified, the gainfully employed population is here placed in two groups. One group is composed of the business and professional classes, farmers and the children of farmers. The latter, of course, expect to become independent farmers upon reaching maturity, and hence, while listed as laborers, from the standpoint of this classification they may properly be classed with the farmers. This, then, is the industrially independent group, independent not so much from the standpoint of income as from the standpoint of being one's own boss.

The second group is composed of the rural and industrial wage-earners and the lower salaried employees. No doubt some of this group receive incomes in excess of many farmers, and even of professional and business men. But their outlook is different because of their place in the industrial system. . . .

148. Defects of socialist production[1]

Further objections to socialism.

The three foregoing selections indicate that socialism is a false doctrine because based upon mistaken premises. Those who object to socialism attack the doctrine from still another angle, *i.e.* they point out the defects of the economic organization which socialism plans to establish. Of the numerous objections to the industrial organization of a socialist state, an important one is that socialism could not build up or maintain an effective system of production. The failure of bolshevism in Russia threw light on the nature of socialist production, and lent weight to theoretical arguments which have

[1] From A. Schaeffle, *The Impossibility of Social Democracy*. Swan, Sonnenschein & Co., London, 1892; pp. 69–74.

long been urged against socialism. The following extract from the works of a German economist, Dr. A. Schaeffle, constitutes a typical example of the objections which for more than a half century have been brought against socialism as a method of production:

Socialism could not unify and coördinate all of the productive forces of a nation.

. . . In the third place, social democracy [socialism] promises an impossibility in undertaking, without danger to the efficiency of production, to unite all branches of it, and in each branch all the separate firms and business-companies into one single body with uniform labor-credit and uniform estimation of labor-time. Herein it goes upon the supposition that the whole tendency of production is towards business on a large scale with local self-complete branches on factory lines. Yet this is a most arbitrary assumption. Even in trade there will always remain over a mass of small scattered pursuits that entirely escape control. . . .

The case of agriculture offers special obstacles to socialism.

In agriculture the large self-complete factory system is excluded by the nature of the case. . . . It may well be that in the agriculture of the future there will be more and more introduction of collective administration for purposes of traction, the in-coming and out-going of produce, and for irrigation and draining, for the common use of machinery, and for operation of loading and despatch. But farming on a large scale . . . is not possible as a universal system; . . . agriculture, unlike other industries, tends in the direction of small or moderately large concerns. . . . And how in any case could it be possible without any authoritative organ of control or regulation to draw all the varied and scattered branches of agricultural labor into one simple homogeneous system, and to reduce all labor to terms of average social labor-time. . . . Social democracy will inevitably fall to pieces at last, though it start with the most successful revolution ever achieved.

Socialism cannot fulfill its promise to increase the national productivity.

Social democracy, in the fourth place, promises to the industrial proletariat a fabulous increase in the net result of dividends of the national revenue, and a general rise of labor-returns all round. This increased productivity of industry would perhaps be conceivable if a firm administration could be set over the collective production, and if it were also possible to inspire all the producers with the highest interest alike in diminishing the cost, and in increasing the productiveness of labor. But social democracy as such refuses to vest

the necessary authority in the administration, and does not know how to introduce an adequate system of rewards and punishments for the group as a whole, and for the individuals in each productive group, however necessary a condition this may be of a really high level of production. For otherwise, of course, there would be no freedom and no equality.

The reason for this.

Therefore, on the side of productivity again, all these delusive representations as to the capacity and possibility of democratic collective production are groundless. Without giving both every employer and every one employed the highest individual interest in the work, and involving them in profits or losses as the case may be, both ideal and material, it would be utterly impossible to attain even such a measure of productivity for the national labor as the capitalistic system manages to extract from capital profit, even in the face of risk, and with varying scales of remuneration. The introduction of even stronger and more effective guarantees of universal thrift and efficiency in a partially collective system may at first sight appear to be not impossible. . . . But this result is impossible if the only means of bringing it about is to be resolutely rejected and denied, namely, the free and ungrudging assignment of a larger proportion of material and ideal good to the real aristocracy of merit. Without a sufficiently strong and attractive reward for individual or corporate preëminence, without strongly deterrent drawbacks and compensatory obligation for bad and unproductive work, a collective system of production is inconceivable, or at least any system that would even distantly approach in efficiency the capitalistic system of to-day. . . .

Conclusion.

So long as men are not incipient angels — and that will be for a good while yet — democratic collective production can never make good its promises, because it will not tolerate the methods of reward and punishment for the achievements of individuals and of groups, which under its system would need to be specially and peculiarly strong. . . .

149. Defects of socialist distribution[1]

Another objection to the program of socialists is that the socialist theory of distribution is defective. Not only would socialism find

[1] From Richard T. Ely, *Socialism and Social Reform.* T. Y. Crowell & Co., New York, 1894; pp. 233–237.

A further objection to socialism.

it difficult or impossible to maintain effective production, but socialism has been unable to demonstrate that it would be able to distribute wealth in accordance with the principles of both justice and economy. In the following selection, Professor Richard T. Ely recapitulates some of the chief objections to socialism as a scheme of distribution:

Equality a fundamental principle in the socialist theory of distribution.

We have already learned that socialists wish to secure justice in distribution, but that they have not been able to agree upon a standard of distributive justice, although they now generally seem disposed to regard equality in distribution as desirable.

Equality is unquestionably the simplest and easiest solution of the problem of distribution under socialism; and it is frequently argued that it meets all the requirements of distributive justice, because it is held that, essentially, one man has rights equal to those which any other enjoys.

Some difficulties of the socialist theory of distribution.

Socialism compels us to agree upon a standard of distributive justice which would be generally acceptable, and which would enlist the services of the most gifted and talented members of the community. If we depart from the principle of equality, it is difficult in the extreme to establish any standard in accordance with fixed principles, calculated to settle controversy. Let us suppose we decide to distribute material goods in accordance with merit or service rendered. How shall we decide upon the value of different services when compared with one another? That distribution which may be called ideal is one that leads to the maximum satisfaction of wants, — that is, distribution in accordance with needs. This means equal distribution among equals, but unequal distribution among those who are unequal; and, as a matter of fact, inequalities among men, in capacity and requirements, are immense.

Examples.

It is desirable to satisfy the most intense wants first, and then the less intense, and so on down the scale. If incomes were distributed equally, there are men whose wants are so limited that they would have more than enough for the satisfaction of every need, while others would be deprived of the means for the satisfaction of genuine and pressing wants. One person has no special intellectual gifts, and can soon acquire all the education which will be beneficial to him. . . . Another has great gifts which fit him to become a painter, a musician, or an original scholar. It is to the interest of society that the faculties

of such a one should be fully developed, and that for their development, the tools, implements, and opportunities, for the exercise of the talent, should be afforded. . . . Such a person can use advantageously a far larger income than the average mechanic or artisan.

Difficulty of distribution according to needs.

But how can we approximate this distribution under socialism? How can we reach agreement in regard to needs? Each one may appreciate his own needs sufficiently, but will he appreciate the needs of others, especially of those who are his natural superiors, and who require ten times as much as he does? Will the ordinary farmer or industrial toiler cheerfully agree to the proposition that some one else needs ten times as much as he does, in order to give equal satisfaction of wants? Unless such is the case, we shall have dissatisfaction and discontent, likely to impair the usefulness of socialism.

Some further considerations.

And this is not all. While it may be difficult for us to come to an agreement in regard to the differences in the value of services rendered by various members of the community, a little careful observation shows us that the difference, after all, is vast. . . . We may take a single industrial establishment and we shall find that, while under one man it thrives, under another it languishes. The question of success is dependent, above everything else, upon right leadership. Now those who have superior gifts and capacities are generally well aware of their superiority. They know that they render more valuable services than others; and if we take men as they are now, or as they are likely to be for a long time, we have every reason to believe that an assignment of merely equal income would not enlist in socialistic production the most capable members of the community, in such a manner that they would give their best energies to the socialistic state; but unless we could secure from the most talented members of the community willing service, socialism would inevitably prove a failure. . . . It is much to be feared that men cannot be socialized to that extent that they will generally accept the principle of equal reward for their services, even could it be shown that it were desirable. And it is impossible to show this, for quite the contrary is true. . . .

Conclusion.

All this brings us to the observation that there is great danger that, under socialism, the true requirements of those engaged in the higher pursuits would be under-estimated, and that the importance

of those occupations which contribute most to the advancement of civilization would fail to secure adequate appreciation. The extent of natural inequalities, and the differences in the requirements of men, are not understood by the masses of mankind; and it is extremely difficult, if not impossible, to make them understand those inequalities and differences. This being the case, we have every reason to apprehend that, under socialism, there would be inadequate provision by the masses for those who carry forward the most important work; that is to say, those whose products are immaterial, ministering to the higher parts of our nature. If this is so, the result of socialism would be a non-progressive society, and in consequence all would finally suffer, because, under a satisfactory social organization, every class will sooner or later share, to a certain extent, in the advantages resulting from progress in science, art, letters, religion. . . .

150. Socialism not necessary to industrial reform [1]

The objections to socialism are of three types

The objections to socialism are of three types. In the first place, socialist doctrine is based upon an unsound theory, *i.e.* the labor theory of value; in the second place, the industrial organization contemplated by socialism is seriously defective; in the third place, it is the belief of many authorities, socialism is not necessary to industrial and social reform. The preceding selections illustrate, to a slight degree, the false basis of socialism and the defects of its proposed industrial organization; it remains to be pointed out that we have good reason to hope for the adequate reform of our industrial system without resorting to socialism. In the following selection Professor Ely takes this point of view:

Capitalism defective,

We have at present an imperfect social organism. It moves forward, creeping and groaning, and splashes the blood of its victims over us all. . . . But our social organism does move forward. If there is a submerged tenth, there are nine-tenths not submerged, and nine-tenths are more than one-tenth. Let us take care to cling to that which we have achieved. It will not do, in efforts to save one-tenth, to run serious risk of submerging nine-tenths. Perhaps never, since the days of Christ, taking the world as a whole, did the pro-

[1] From Richard T. Ely, *Socialism and Social Reform*. T. Y. Crowell & Co., New York, 1894; pp. 254–257.

vision for material wants so nearly approximate a sufficiency for all as at present. . . .

The light of civilization is gradually becoming brighter, warmer, and its rays are slowly penetrating farther and farther into the darkness. — but decreasingly so.

That wise old sage, Aristotle, said that virtue consisted in avoiding the too much and the too little. Is there not a golden mean between the too little (namely, rigid, obstructive and revolutionary conservatism, that conservatism which refuses to recognize defects in the existing social order, and resists obstinately all reform of progress), — and the too much; (namely, reckless radicalism, which, in reaching out for improvement, risks the treasures accumulated during so many ages, treasures so painfully gathered together)? Can we not, in our industrial life, keep what we have that is valuable, and escape some of the evils which socialism has so vividly depicted? And let us frankly, fully, without equivocation, acknowledge the great services which socialism has, in this as in other respects, rendered society. Can we not carefully, conservatively add to our social order some of the strong features of socialism, and yet keep this social order intact? It seems to the author that this is practicable. . . . — Is there a golden mean? — Yes.

One question which meets us at the threshold of our inquiries concerns the possibility of reform. Can we accomplish the ends which we have in view, and will the effort which we put forward to accomplish these ends meet with a return commensurate with the exertion involved? It is frequently urged that all our efforts amount to so little that it is not worth our while to try to improve society. When we look into the efforts to accomplish reform in the past, we cannot find reason for discouragement; quite the contrary. Well-directed effort has accomplished great things; and we are warranted in the belief that a thorough reformation of society, and the reduction of social evils to very low terms, if not a complete abolition, is practicable. . . . — The promise of social reform.

Questions on the foregoing Readings

1. What is the importance of attacking the labor theory of value?
2. Why cannot the labor theory of value explain the value of land?
3. What can be said as to the inability of this theory to explain the value of old coins, stamps, and similar commodities?

4. Illustrate the fallacy of the theory with regard to agricultural produce.
5. What, according to Professor Le Rossignol, are the factors which really determine value?
6. What is Mr. Brasol's reason for saying that the formula that labor is the sole producer of wealth must read as follows: "*Manual* labor is the sole producer of wealth"?
7. How does the erection of the Woolworth Building disprove the statement that manual labor is the producer of all wealth?
8. What criticism does Mr. Brasol bring against the American socialist, Mr. Hillquit?
9. What, according to Mr. Brasol, is a characteristic feature of modern production?
10. What per cent of the gainfully employed population of the United States was included in the term "urban upper and middle class" in 1910? What per cent were in the rural group? What per cent were urban workers?
11. What is meant by the "white collar" urban population?
12. What types of individuals are included in the "rural group"?
13. What type of workers make up the group listed by Mr. Hansen as "urban workers"?
14. What proportion of our gainfully employed population belonged to the independent class in 1910?
15. How does agriculture illustrate the difficulties confronting socialism in the field of production?
16. Under what circumstances, according to Schaeffle, would socialism possibly be able to increase the productivity of industry?
17. Why did he not believe that such an increase would actually come about?
18. What, in brief, is the objection to socialism as a method of distributing wealth?
19. What is unquestionably the simplest and easiest solution of the problem of distribution under socialism?
20. What is Professor Ely's chief objection to this plan of distribution?
21. What is his conclusion with regard to socialism as a method of distributing wealth?
22. What are the three types of objections to socialism?
23. What does Professor Ely say as to the imperfection of the social organism at the present time?
24. What did Aristotle believe to be the nature of virtue?
25. How does Professor Ely apply Aristotle's concept of virtue to the industrial situation?

CHAPTER XXVI

SUMMARY AND FORECAST

151. Capitalism is orderly[1]

The purpose of this chapter.

We entered upon Part III with an indictment of the capitalistic system, and followed with a consideration of various plans to reform that system. The purpose of this chapter is to emphasize in this great problem some elements which we have so far neglected, and to outline the course which the reform of our industrial system will probably take in the future. Let us begin with a brief inquiry into the fundamental nature of capitalism. Opponents of the present order frequently declare that capitalism is a chaotic and haphazard affair; in direct contradiction to this charge, many students of industry maintain that capitalism is primarily an orderly system. An English economist, Mr. Edwin Cannan, discusses order in capitalism as follows:

The capitalistic system is not chaotic.

Some would have us believe that at present there is in society no organization at all. They use hard words, such as "scramble for wealth," "suicidal competition," "exploitation," "profit hunting," and say that the present state of things is "chaotic." Now, whatever our present state may be, however unsatisfactory it is, it is certainly not chaotic. If it were really chaotic, everyone who goes to his daily work to-morrow must be a fool, since he would be just as likely to get his daily bread if he stayed at home. The very fact that we all know as well as we do that certain results will almost inevitably follow upon a certain course of action shows that we are not living in chaos. Our system may be a bad system, but it is a system of some sort; it is not chaos.

If a man holds a book too close to his nose he cannot read it, and so it is with the world of industry. If we look at it from too close a

[1] From Edwin Cannan, *Wealth: A Brief Explanation of the Causes of Economic Welfare.* P. S. King & Co., London, 1914; pp. 72–75. (Slightly Adapted.)

If the inhabitants of Saturn could see us through a telescope

standpoint we can only see a blur. Let us imagine a committee of the Economics Section of the Association for the Advancement of Science of the planet Saturn reporting on what they had been able to see of affairs on our planet through a gigantic telescope big enough for them to see human beings moving on its face. Would they be able to report that poor Mundus seemed quite chaotic? Would they report that everyone was scrambling for himself to the disadvantage of everyone else in such a way that the general good seemed entirely neglected? Would they say that all the land in the most convenient situation was lying idle, that nobody had a roof over his head, and that everyone was running about aimlessly or sitting idle in imminent danger of starvation?

they would probably report that we were an orderly and industrious people,

They might report something of the kind if they could carry on conversations with certain people here and if they believed all they were told, but certainly not if they judged by their own observation. They would be more likely to report that they had seen a very orderly people coöperating on the whole with a wonderful absence of friction — that they had seen them come out of their homes in the morning in successive batches and wend their way by all sorts of means of locomotion to innumerable different kinds of work, all of which seemed somehow to fit into each other so that as a whole the vast population seemed to get fed, and clothed, and sheltered.

though, of course, our industrial arrangements are not without defects.

They would not, of course, vouch for the perfection of the arrangements. They would see that there were occasional irregularities and hitches. They might see now and then too many vehicles in one street, too many passengers trying to travel by one train or tramcar. They might even see along the country roads the melancholy spectacle of men tramping in both directions in search of the same kind of work. They might be able to see that some had too much — more than they seemed to know how to dispose of without hurting themselves and others — while some evidently had too little for healthy and happy existence. But in spite of these defects they would report, I think, that on the whole the machinery, whatever its exact nature, seemed to do its work fairly effectively.

If we can imagine them able to go back five hundred or a thousand years, we can feel tolerably sure that they would report still more favorably, since they would then see the enormous improvement

which had taken place and would discover no appearance of any change which would suggest that the existing system is not the outcome of an orderly development of the institutions of the past.

A caution.

I insist so strongly on the fact that our existing machinery does work, not with any idea of contending that all is for the best in the best of all possible worlds, but because to understand economics it is necessary to begin by considering, not the defects in the machinery, but the main principles involved in its construction and working. We are likely to begin with the defects because it is they which strike our eye and excite our sympathy. Seven per cent of unemployed are much more likely to make us start thinking than 93 per cent who are in employment. The emaciated corpse of a single person starved to death naturally makes more impression on our minds than the comfortable bodies of a hundred thousand sufficiently fed citizens. But if we want to understand the reason why work and food do not quite "go round," we should begin by endeavoring to discover what, after all, certainly does not explain itself — why they go as far round as they do. . . .

152. What we owe to private property[1]

Private property a fundamental cornerstone of capitalism.

A fundamental cornerstone of the capitalistic system is the institution of private property. Our system of private property has been attacked by the single taxer and the socialist, as well as by other types of reformers. Although the institution has its defects and is often associated with great and glaring evils, most economists believe that the benefits of private property greatly outweigh its defects. An American economist, Professor Walton Hale Hamilton, has very strikingly summarized the case for private property by pretending that private property is a personality and capable of expressing its own views. The following is an extract from what Professor Hamilton calls Private Property's "apology" for existing:

The institution of private property

What have I to say why judgment should not be passed against me? Why should I not be banished from human society? Why, with creatures of darkness, should I not be cast into the outer void? I have little to say. But my long and effective services to society

[1] From Walton Hale Hamilton, *Current Economic Problems*. University of Chicago Press, Chicago, 1915; pp. 766–769.

speak eloquently for themselves, and I may as usual content myself with few words. I need only enumerate in briefest form the record of my accomplishments, and I feel that my defense is done. For society, and in furtherance of civilization, I, Private Property, assert that I have performed these services, to wit:

has strengthened the right of possession;

First, I have rendered the fundamental conditions of social and industrial life safe and secure. Before I came into my own, the power to seize and hold summed up the ethics of ownership. Energies that might have gone into more productive employments were used in defending one's own or in appropriating one's neighbor's. But I established and secured social sanction and universal respect for the right of possession.

it has diverted human energies to the production of wealth;

Second, the security thus afforded has caused the energies of men to be diverted from the acquisition to the production of wealth. It has led to the utilization of natural resources, and has provided opportunity for the use of long-continued and consistent industrial policies which have caused material goods to increase verily a hundredfold.

Third, such security has furnished an incentive to man as a worker to utilize his productive capacities to the full. It has caused him to sow, because it has promised that he, and not another, should reap. It has led him to sacrifice immediate gain in establishing new processes and in devising new instruments of production to the end that the earth might be crowned with abundance.

it has conferred wealth upon a few, but not necessarily unjustly;

Fourth, I plead innocent of the charge of having favored a privileged "leisure class," upon whom I have showered plenty that has been wasted in riotous living. It is true that I have conferred wealth upon a few. But these few I have not particularly favored. I have chosen them for highly important and extremely dangerous social service. I have assigned to them the task of experimentation in consumption. Whatever bad they have found they have discarded. The good that they have discovered has in time been made the property of the masses. They are the vanguard of my army which is engaged in raising the standard of living. . . . Witness their suffering, their costs, and you can appreciate the heroism which makes them willing to serve society in so dangerous and important an undertaking. . . .

Fifth, I have greatly increased the product of industry by the use of vast stores of capital. The economic inequality which I have perpetuated has been the cause of the existence of so fruitful a fund. For its bulk has come from the very large incomes whose source I am. The savings which become the capital that turns the wheels of our mills, runs our machines, and speeds our trains across the continent on their missions of service are possible only because of me. And, but for the security which I offer, the investment of these savings would be impossible. it has promoted the development of capital;

Sixth, I supply the people with abundance and contribute to the fullness of their lives. The security which I have brought about has almost eliminated risks. The result is decreased costs, which I generously offer to the public in decreased prices. The long-time productive operations, the improvements in technique, and the cumulative investment of capital, which I have brought about, confer the favors of plenty, variety, and cheapness upon all sorts and conditions of men. . . . it has enriched human life;

Seventh, I have led society in its development to higher and higher planes. Out of my abundance they have been able to satisfy more and more of their material wants. The certainty with which I have endowed the satisfaction of the necessary material wants has enabled those who choose to give of their time, energy, and means to the immaterial things of life. Our culture, with its wide horizon and its varied content, is my handiwork. That civilization is not coarse and material and brutal is my doing. . . .

Ninth, I have proved myself the custodian of peace and laid the foundations of a world-wide Christian community. The system of vested interests with which I have surrounded labor and capital has done more for the cause of peace than all other agencies combined. For I have increased many fold the costs to all classes of engaging in war. The world-wide industrial system which I have wrought is more powerful than all armaments combined in protecting a state against the encroachments of another state and it contributes more to nation's understanding of nation than the whole world-wide system of diplomacy. My success has not been complete, but that merely makes my continued presence and activity all the more necessary. and it has promoted the cause of peace.

I would not detract one whit from the good intentions of my male- Conclusion.

factors. I bear them no malice. My only plea is that I be judged according to my fruits. I am done.

153. Progress is accompanied by discontent[1]

A danger to be guarded against.

The student who is unfamiliar with the principles of social psychology is likely to conclude that discontent necessarily implies a debased condition, and that increasing discontent must mean that conditions are growing worse. But as a matter of fact it often happens that peoples who are really degraded complain of their lot very little or not at all, while the most bitter demands for improved conditions come primarily from those whose lot is not only already fairly satisfactory, but is actually *improving*. This fact is of profound importance in securing a fair view of the ills of American industry. Though complaints against capitalism increase in number, and though we hear more and more of agitations for betterment, we must not conclude that this necessarily implies that American industry is more and more oppressive. Rather, it may indicate that the lot of the masses is improving, as a student of socialism, Professor O. D. Skelton, points out in the following passage:

"The more things improve the louder become exclamations about their badness."

Not least important among the causes of the increasing discontent is the betterment in the condition of the masses. Spencer has called attention to the curious paradox that frequently "the more things improve the louder become exclamations about their badness." When women bore the heavy burdens and received what food was left after their lords and masters had eaten, there was little outcry as to the rights of women; to-day, when they have been given all but equal privileges, their grievances are proclaimed from the housetops. A century ago, when drunkenness was normal and the man who could not take his one or two bottles of wine was held a milksop, there was little agitation against the evils of drink; but to-day, when more exacting industrial demands and temperance propaganda have produced comparative sobriety, the prohibition movement sweeps whole states.

The example of the workman.

So with the condition of the average workingman of to-day as compared with that of his ancestors. It is beyond question that wages

[1] From O. D. Skelton, *Socialism, A Critical Analysis*. Houghton Mifflin Co., Boston, 1911; pp. 17–19, 21.

are higher, hours are shorter, housing is better, the death-rate lower. The state, and private and institutional philanthropy, have been active to an unparalleled degree in providing for him free education, free museums, free parks. Yet all these betterments have merely served to whet the appetite for more, to nourish the spirit of resistance, to foster a "divine discontent." The hopelessness of utter poverty and ignorance crushes; a half advance rouses fierce demand.

The widening of ambition

At the same time that ambition is stirred, the goal tantalizingly recedes into the distance. Not merely is demand stiffened; its scope is immensely widened. The higher pedestal has opened new horizons: heavens undreamed of have been glimpsed. The growth of your wants outfoots the growth of your ability to supply them. A smaller proportion of your demand is effectual, as the economists remark. For your standard is set, not by your outgrown self, nor by your ancestor dead and gone, but by the more fortunate about you.

turns the luxuries of yesterday into to-day's necessities.

The optimist may remind you that one born in your station of life a century ago, or in that poorer land from which you emigrated, would have thanked God humbly for meat once a week; that not many centuries ago cotton was a luxury reserved by law for countesses, or that Plantagenet kings slept on rushes and dined by the light of a tallow dip. To no purpose: it matters little that your great-grandfather walked shoeless, while you walk shod; it matters much that you walk, while your neighbor whizzes by in his ninety-horse-power car, or casts upon you the shadow of his aeroplane. Standards have advanced faster than incomes. The luxuries of yesterday become to-day's necessities. More and more, home services and preparations are replaced by the tempting but expensive conveniences of the open market. . . .

Democracy sharpens the sting of economic inequality.

Democracy sharpens the sting of economic inequality. Equal votes suggest equal purses. By a taking analogy industrial democracy appeals as the inevitable complement of political democracy. Plutocratic prejudices against the ability of the people to govern themselves in the matter of making a living must go the way of outworn aristocratic prejudices against the people's ability to govern themselves in affairs of state. When men are born weak and work and die within the limits of caste, and are trained to pray Providence to keep them in their proper stations and bless the Squire and his

relations, it is only the few hardiest spirits who dream of questioning the justice of their lot. But when the barriers of caste are down, and democratic theory teaches that every man is as good as his neighbor, then the case is altered. It may well be that the gap between modern millionaire and tenement dweller is less than the gap between medieval lord and peasant, but the peasant did not compare himself with his lord. . . .

Scientific progress has made us optimistic regarding industry.

The miracles of nineteenth-century science have helped to accustom men's minds to schemes of revolutionary change. We have mastered Nature, have weighed the sun and flashed messages across the ocean, have harnessed steam and electricity to do our bidding, and shrunk the huge earth's circumference to a forty-day Cook's tour. To optimistic minds it seems but child's play, compared with such achievements, to alter the economic system under which we live.

The influence of propaganda.

Finally, it may be noted what facilities for propaganda have been created by the new mobility of labor, the ease of transportation, the rise of the popular press. The barriers which a few centuries ago made it possible to isolate a radical force, have broken down; now all the world's the stage. Criticism has proved a commercial success: the press prefers ten proletarian coppers to one plutocratic nickel. The fierce yellow light that beats upon a multi-millionaire keeps the sins of wealth ever before us. . . .

154. Should all inequality of wealth be abolished?[1]

The inequality of wealth a familiar charge against capitalism.

Perhaps there is no more common and persistent charge against capitalism than that it permits and encourages the inequality of wealth. The striking contrast between the millionaire on the one hand and the labor-broken wage-earner on the other has been utilized for many generations by the opponents of capitalism. Now it is freely admitted on all sides that the inequality of wealth has many objectionable features. But *can* it be altogether abolished? And *should* all inequality of wealth be abolished? In the following selection Professor Charles Gide answers these questions in the negative, and gives his reasons for so doing:

[1] From Charles Gide, *Principles of Political Economy*. D. C. Heath & Co., 1903; pp. 442–444.

The abolition of all inequality of wealth is not possible,

An investigation of [the subject] does not lead to the conclusion that all inequality of wealth should be abolished. For, in the first place, it would be *impossible* to do this, at least until we succeed in suppressing those natural and innate differences between individuals of which the inequalities of wealth are simply the incommensurate consequences.

and probably is not desirable.

Nor, in the second place, does it seem *desirable* to do away with the inequality of wealth, at least until human societies have entirely traversed the progressive and experimental phase of their development. Economic inequality acts as an incomparable stimulus to production. It keeps all men on the alert, from the bottom to the top of the social ladder, by offering the prospect of gradual advancement. It gives individual initiative the greatest possible scope by permitting the concentration of enormous capital in the hands of those who are capable of using it to the best advantage. It gives rise to an abundant variety of human activities, and the widest conceivable range of wants and desires. Men desire wealth ardently, not so much because of the pleasures as of the power which it procures. And power involves inequality.

But riches should be proportionate to social service.

But in order that the inequality of wealth shall satisfy the above conditions, it must as far as possible be *proportionate to the values created* by its owners, or to the services rendered to society. The ultimate aim of all social reform is to achieve a closer relation, a parallelism, between riches and productivity or social service.

The logical consequence of this condition seems to be that wealth must not be inheritable, for if it is, it is not the recompense of personal effort. But it should be noted that although the inheritability of wealth does not stimulate the labor of the children, it does stimulate that of the parents. . . .

It is true that *perpetual* inequalities are unfortunate,

Yet we are perfectly willing to admit that *perpetual* inequalities are extremely unfortunate, because they create class distinctions. They discourage those who are placed low on the social ladder, by depriving them of all opportunity to rise; and they conduce to inactivity among the wealthy because wealth induces a feeling of permanent security in those that possess it. Great permanent differences of wealth break the ties of social solidarity, and create a chasm between Lazarus and Dives across which no bridge can be built.

Those that are poor cease to work, because it seems useless; those that are too rich abandon all productive effort because they no longer need to work.

because they give rise to indolence and pauperism.

These economic extremes engender two evils which have afflicted society so long, — indolence and pauperism, — both of which lead to unproductive consumption. By creating, at the top and at the bottom of the social ladder, two classes of social parasites, extreme inequality works precisely contrary to natural selection, the beneficent effects of which are so often glorified by optimistic economists.

Conclusion.

But differences of wealth are unlikely to have this enduring character except in communities where they are defended and aggravated by the laws. . . . In democratic communities, inherited fortunes do not usually remain long in the possession of incapable persons.

155. The importance of seeing things in proportion[1]

An error to be avoided.

Nothing is more characteristic of some types of agitators and "reformers" than the tendency to look at modern life from a distorted point of view. A case in point is the radical agitator who is continually overemphasizing the evils of the capitalistic system. Now the existence of many of these evils cannot be denied, but the error lies in assuming that because such evils do exist, they must necessarily be more numerous and more important than the merits of capitalism. It would be hard to find an *individual* who could not be placed in an unfavorable light by emphasizing his faults and neglecting his virtues. The same is true of *institutions*, hence the importance, in studying the problem of reforming industry, of seeing things in proper perspective. The importance of this is developed by an English publicist, Mr. William H. Mallock, in the following discussion of social reform in England:

The conservative is as fully aware of poverty as is the radical,

The importance of our realizing the actual state of the case, of escaping from the dream-world of the agitator, where all that is, is inverted, is incalculable. Such an escape on the part of public opinion would be in itself a revolution. We have, however, something more to add, or our own estimate of the truth would be gravely mistaken. When we declare that the poorer classes as a body have advanced,

[1] From William H. Mallock, *Property and Progress*. G. P. Putnam's Sons, New York, 1884; pp. 245–248.

and are advancing enormously, we do not for a moment close our eyes to the squalor and the misery that still remain among us; and if any radical thinks he is refuting our position by pointing to the horrors of squalid and outcast London, we reply that of these we are as fully aware as he, and that our concern for them is as fully as great as his.

but the conservative sees things in proportion, while the radical does not.

We differ from him, not in seeing them, but in seeing them in true proportions. If we were to find in the road some unhappy man covered with blood from a terribly mangled leg, we should not be showing any want of compassion if we stoutlv maintained that the wound was in the leg only, and that, in spite of his agony, not another member was injured. Not only is compassion for misery not best shown by exaggerating it, but one of the chief conditions of its use is that it should not be exaggerated. With diseases in the body politic, this is the case especially; and no more foolish or disastrous course can be taken than to bewail the pain without considering the extent of the evil, and to treat a nation as though it were in a dangerous fever, when in reality it is suffering from nothing but an acute inflammation.

Our duty.

It is our duty, if we would not lose our heads, to keep our eyes on what is going well with us, just as steadily as on what is going ill with us. . . .

The existence of a large body of poor people

It will be recollected that in dealing with the progress of the poorer classes, we showed it [in an earlier part of this book] to be impossible that more than a quarter of their number should have failed to better their position by at least 100 per cent during the last forty years, and that even of this quarter a very considerable proportion must have bettered their position by at least 25 per cent. But when we speak of a quarter of the poorer classes of this country, we are speaking of a population of 7,500,000 persons; and there is room in even half this number for enough misery, not only to shock a philanthropist, but to be a source of serious social danger to the community. Were there only one family in eight below the condition of comfort, the proportion of the wretched that would belong to London alone would be something like 500,000 persons. That certainly is a reflection sufficiently distressing and serious.

But even that can be regarded in two ways. We may either say,

is regarded variously by the agitator, the optimist,

Is it not a disgrace to our civilization, is it not a horrible thing, that one family out of every eight should be on the verge of destitution? Or we may say, on the other hand, Is it not a triumph of our civilization, is it not a most hopeful sign, that in place of the pauperism of forty years ago, seven families out of every eight are in a condition of progressive competence? The agitator dwells only on the first consideration; the optimist only on the second.

and the conservative.

Both agitator and optimist are wrong. The only right proceeding is to give equal weight to each; and to do this is the characteristic of true conservatism. The conservative differs from the radical and the agitator, not because he sees less, but because he sees more. And the result of this extended vision, this dispassionate looking on both sides of the question is not to make us think that there is no misery to be alleviated, but to encourage us in our effort for alleviating it, and to show us the direction and the spirit in which those efforts must be made. . . .

156. The reform of industry: a forecast [1]

What is the outlook for American industry?

We are approaching the end of an extended survey of the problem of the reform of American industry. Probably the most important question which can here arise is this: What is the outlook for American industry? If such programs as coöperation, single tax, and socialism are inadequate remedies for the evils of capitalism, we wish to be assured of some substitute program. We wish to know if social reform can ameliorate the evils of present-day life, and if we may expect a greatly improved society in the future. A forecast of what we may expect social reform to accomplish in the future is presented in the following passage by Professor Richard T. Ely:

The contrast between the advocate of a panacea

The contrast between the program of social reform . . . and that offered by the advocates of panaceas, is most marked. The reformer, who has his one remedy for all social evils, will have little patience with what he will regard as patchwork. He wishes to go to the root of things and to reshape entirely some one great institution, claiming that then everything in the social world will be all that could be desired.

[1] From Richard T. Ely, *Socialism and Social Reform.* Thomas Y. Crowell Co., New York, 1894; pp. 350, 352–354.

and the reformer who favors a variety of measures.

At the same time, the advocate of a single reform, whether this be "free trade" or "single tax" or "land nationalization," has a position of vantage. He elaborates his reform in all its details, and concentrates attention upon that. Attention is divided, in the program of social reform . . . among a multiplicity of reforms; and this may at first be thought a weakness, but careful reflection will show that it corresponds to the complexity of modern civilization.

How the progress of society will be secured.

Reforms must come from many different sources, and of thousands of agencies of genuine reform and progress no one can be spared. No one person will be in a position to take up all of the reforms which have been advocated and push them vigorously. One line of reform will interest one class of persons, and another line another class, and thus, working together more or less consciously, the progress of society will be secured. . . .

A look into the future.

The way which we must travel is long and weary, and yet it is one which affords delight in the prospect of progress. Looking into the future we may contemplate a society with real, not merely nominal, freedom, to pursue the best; a society in which men shall work together for common purposes, and in which this wholesome cooperation shall take place largely through government, but through a government which has become less repressive and has developed its positive side. We have reason to believe that we shall yet see great national undertakings the property of the nation, and managed by the nation, through agents who appreciate the glory of true public service. . . .

The type of society which we may anticipate.

We may look forward to a society in which education, art, and literature shall be fostered by the nation, and in which federal government, commonwealth, local community, and individual citizens shall heartily coöperate for the advancement of civilization. We may anticipate a society in which the way to success shall be broadened, genuine merit appreciated, and social service rewarded.

The coming of this society will mean the discouragement of great fortunes, the promotion of measures designed to increase the number enjoying a competence, and the reduction to its lowest terms of the chance element in the economic sphere, because that brings undeserved losses as well as unearned increment; and in removing the close connection which ought to exist between service and reward,

weakens the springs of right conduct. This society will readjust taxation for social purposes, and will, by the taxation of bequests and inheritances and unearned incomes, more nearly equalize opportunity; and the best efforts of men will be more actively stimulated, because well directed effort will be more certain than now of reward. . . .

The future of the masses.

Without entertaining thoughts of a working day of two or three hours, we may yet expect more leisure for the masses. On the one hand, with the perfection of the processes of material production, we may hope that an increasing proportion of men will be freed for the greater part of their lives from material production, and will have an opportunity to devote themselves to the higher pursuits of life. Men will, we may hope, act on their environment and improve it, and the improved environment will react on men favorably. We may anticipate an approximation of state and society as men improve, and we may hope that men outside of government will freely and voluntarily act with trained officers and experts in the service of government for the advancement of common interests. We may look forward to a society of men loving truth, continually progressing in goodness, and surrounded by an expanding beauty of subjugated Nature.

Questions on the foregoing Readings

1. What is the purpose of this chapter?
2. What terms are used by those who would have us believe that there is in society no organization at all?
3. What is the disadvantage of looking at industry from too close a standpoint?
4. If we were to suppose the inhabitants of Saturn in a position to examine the earth, would they say that our society is chaotic? Explain.
5. What defects would they probably notice?
6. What is meant by the statement that private property has "rendered the fundamental conditions of social and industrial life safe and secure"?
7. What effect has private property had upon the production of wealth?
8. What effect has private property had upon capital?
9. What is the relation between the institution of private property and peace?
10. Explain the meaning of the statement that "the more things improve the louder become exclamations about their badness."
11. What is the effect upon the standard of living of a widening of ambition?

12. Explain the statement that "democracy sharpens the sting of economic inequality."
13. Explain the statement that "scientific progress has made us optimistic regarding industry."
14. Is the abolition of all inequality of wealth possible? Explain.
15. Is the abolition of all inequality of wealth desirable? Explain.
16. What is meant by the statement that "riches should be proportionate to social service"?
17. What two great evils are the result of perpetual inequalities?
18. Into what error does the radical agitator often fall when he points out the evils of the present system?
19. What, according to Mr. Mallock, is the difference between the viewpoint of the radical and the viewpoint of the conservative?
20. How does the agitator regard the existence of poverty?
21. How does the optimist regard the existence of poverty?
22. What is the viewpoint of the conservative?
23. Contrast the program of social reform with the program offered by the advocates of panaceas.
24. What have we a right to expect as to the industrial society of the future?
25. What have we a right to expect as to the position of the working classes in that society?

CHAPTER XXVII

CONSERVATION OF NATURAL RESOURCES

157. Why conservation of natural resources is necessary[1]

In 1908 President Roosevelt called a Conference of Governors to consider the problem of conservation.

In the earlier decades of our national history, the abundance of land, minerals, forests and other natural resources was so great that they were used generously and even lavishly. To a considerable extent such use was economically justified; nevertheless the shortage of these resources has recently called attention to the need of conserving them. The conservation movement began toward the close of the last century, but until after 1900 made relatively little headway. Realizing the urgency of the problem, President Roosevelt in 1908 called a Conference of Governors of the states and territories of the United States to consider this important question. On May 13, 1908, the President opened the Conference with an address to the governors and other guests, speaking, in part, as follows:

President Roosevelt welcomes the delegates.

I welcome you to this Conference at the White House. You have come hither at my request, so that we may join together to consider the question of the conservation and use of the great fundamental sources of wealth of this nation. . . .

Importance of conservation.

This Conference on the conservation of natural resources is in effect a meeting of the representatives of all the people of the United States called to consider the weightiest problem now before the nation; and the occasion for the meeting lies in the fact that the natural resources of our country are in danger of exhaustion if we permit the old wasteful methods of exploiting them longer to continue. . . .

The situation in

In Washington's time anthracite coal was known only as a useless black stone; and the great fields of bituminous coal were undis-

[1] From the Conference of Governors in the White House, Washington, D. C., May 13–15, 1908. *Proceedings*. Washington, 1909; pp. 3, 5–8.

covered. As steam was unknown, the use of coal for power production was undreamed of. Water was practically the only source of power, save the labor of men and animals; and this power was used only in the most primitive fashion. But a few small iron deposits had been found in this country, and the use of iron by our countrymen was very small. Wood was practically the only fuel, while the forests were regarded chiefly as obstructions to settlement and cultivation. The man who cut down a tree was held to have conferred a service upon his fellows. . . .

Washington's day.

Since then our knowledge and use of the resources of the present territory of the United States have increased a hundredfold. Indeed, the growth of this nation by leaps and bounds makes one of the most striking and important chapters in the history of the world. Its growth has been due to the rapid development, and alas, that it should be said! to the rapid destruction, of our natural resources. Nature has supplied to us in the United States, and still supplies to us, more kinds of resources in a more lavish degree than has ever been the case at any other time or with any other people. Our position in the world has been attained by the extent and thoroughness of the control we have achieved over Nature; but we are more, and not less, dependent upon what she furnishes than at any previous time of history since the days of primitive man. . . .

Significance of the rapid development of the United States.

The wise use of all of our natural resources, which are our national resources as well, is the great material question of to-day. I have asked you to come together now because the enormous consumption of these resources, and the threat of imminent exhaustion of some of them, due to reckless and wasteful use . . . calls for common effort, common action. . . .

The great material question of to-day.

This nation began with the belief that its landed possessions were illimitable and capable of supporting all the people who might care to make our country their home; but already the limit of unsettled land is in sight, and indeed but little land fitted for agriculture now remains unoccupied, save what can be reclaimed by irrigation and drainage — a subject with which this Conference is partly to deal. We began with an unapproached heritage of forests; more than half of the timber is gone. We began with coal fields more extensive than those of any other nation and with iron ores regarded

Rapid exhaustion of resources.

as inexhaustible, and many experts now declare that the end of both iron and coal is in sight. . . .

The time has come for conservation.

We have become great in a material sense because of the lavish use of our resources, and we have just reason to be proud of our growth. But the time has come to inquire seriously what will happen when our forests are gone, when the coal, the iron, the oil, and the gas are exhausted, when the soils shall have been still further impoverished and washed into the streams, polluting the rivers, denuding the fields, and obstructing navigation. These questions do not relate only to the next century or to the next generation. One distinguishing characteristic of really civilized men is foresight; we have, as a nation, to exercise foresight for this nation in the future; and if we do not exercise that foresight, dark will be the future! [Applause.] . . .

[158. Declaration of the conference of governors[1]

The committee on resolutions submits a declaration.

During the three days of the Conference of Governors numerous papers and discussions on the subject of conservation were offered. On the last day of the conference, the committee on resolutions submitted a declaration which was unanimously adopted by the members of the Conference as embodying their conclusions on the question of conservation. This declaration was as follows:

Our prosperity dependent upon natural wealth.

We, the Governors of the States and Territories of the United States, in conference assembled, do hereby declare the conviction that the great prosperity of our country rests upon the abundant resources of the land chosen by our forefathers for their homes and where they laid the foundation of this great nation.

Resources must not be wasted.

We look upon these resources as a heritage to be made use of in establishing and promoting the comfort, prosperity, and happiness of the American people, but not to be wasted, deteriorated, or needlessly destroyed.

We agree that our country's future is involved in this; that the great natural resources supply the material basis on which our civilization must continue to depend, and on which the perpetuity of the nation itself rests.

[1] From the Conference of Governors in the White House, Washington, D. C., May 13–15, 1908. *Proceedings*. Washington, 1909; pp. 192–194.

We agree, in the light of facts brought to our knowledge, and from information received from sources which we cannot doubt, that this material basis is threatened with exhaustion. Even as each succeeding generation from the birth of the nation has performed its part in promoting the progress and development of the Republic, so do we in this generation recognize it as a high duty to perform our part; and this duty in large degree lies in the adoption of measures for the conservation of the natural wealth of the country. [Applause.]

These resources threatened with exhaustion.

We declare our firm conviction that this conservation of our natural resources is a subject of transcendent importance, which should engage unremittingly the attention of the nation, the states, and the people in earnest coöperation. These natural resources include the land on which we live and which yields our food; the living waters which fertilize the soil, supply power, and form great avenues of commerce; the forests which yield the materials for our homes, prevent erosion of the soil, and conserve the navigation and other uses of our streams; and the minerals which form the basis of our industrial life, and supply us with heat, light, and power.

Necessity of coöperation.

We agree that the land should be so used that erosion and soil-wash shall cease; that there should be reclamation of arid and semi-arid regions by means of irrigation, and of swamp and overflowed regions by means of drainage; that the waters should be so conserved and used as to promote navigation, to enable the arid regions to be reclaimed by irrigation, and to develop power in the interests of the people; that the forests which regulate our rivers, support our industries, and promote the fertility and productiveness of the soil should be preserved and perpetuated; that the minerals found so abundantly beneath the surface should be so used as to prolong their utility; that the beauty, healthfulness, and habitability of our country should be preserved and increased; that the sources of national wealth exist for the benefit of the people, and that monopoly thereof should not be tolerated. [Applause.]

Measures recommended.

We commend the wise forethought of the President in sounding the note of warning as to the waste and exhaustion of the natural resources of the country, and signify our high appreciation of his action in calling this conference to consider the same and to seek

The President commended.

remedies therefor through coöperation of the nation and the states. [Applause.]

The call for coöperation.

We agree that this coöperation should find expression in suitable action by the Congress within the limit of and coextensive with the national jurisdiction of the subject, and, complementary thereto, by the legislatures of the several states within the limits of and coextensive with their jurisdiction.

We declare the conviction that in the use of the natural resources our independent states are interdependent and bound together by ties of mutual benefits, responsibilities and duties. [Applause.] . . .

Let us conserve the foundations of our prosperity. [Great Applause.] . . .

159. The conservation of forests [1]

Rapid decline in the extent of our forest area.

The forests of the United States constitute one of our most important natural resources. The safeguarding of forests attracted attention very early in the conservation movement, largely because of the spectacular waste which has characterized our use of timber and timber products. More than three-fourths of our original forest area has been culled, cut over, or burned, since colonial times. Careless cutting and forest fires have helped to diminish our timber supplies. Altogether our timber supply has been diminishing three or four times as fast as we have been replenishing it. As a result of this alarming development, more and more attention has been given, of recent years, to the conservation of forests. In 1906, the Senate committee in charge of the bill providing for the purchase of vast areas in the Appalachian and White mountains for Federal forest reservations advanced the following arguments in favor of that step:

The creation of Federal forest reserves is both a wise public policy and

First: The creation of these reserves is a wise public policy. Between the census of the years 1850 and 1900, the population of the country increased from 23,000,000 to 76,000,000, or 330 per cent, but the money value of the lumber product which it consumed increased from $60,000,000 to $566,000,000 or 940 per cent. Both the per capital consumption of timber and the price of timber are increasing. . . . It is estimated that 24 per cent of the Southern Appalachian region has been deforested. Deforestation means loss of power

[1] From *House Reports*, 59th Congress, 1st Session, 1905–1906, Vol III, No. 4,399.

to produce future forests. It is in the public interest that these lands should be acquired and held by the Government as permanent sources of timber supply.

a good business policy.

Second: The acquisition of these lands by the Government will be good business policy. The use of the western reserves is just beginning, but the Government receipts from these reserves are approximately one-half the outgo. Within a short term of years, they will undoubtedly carry themselves. At the same time their property value is rising and will continue to rise, both from the increasing value of the timber and from the greater productiveness of the forests under management. With a present value of not less than $250,000,000, these western reserves are being administered at an annual cost of one-third of one per cent of this sum while they are increasing in value fully 10 per cent a year. This is in addition to their enormous indirect returns to the public welfare from their indispensable relation to successful irrigation, to mining and other industries which demand lumber, to settlers, and to stock grazing. . . .

Why the creation of such reserves is necessary.

Third: The creation of these reserves is, now or later, a necessary policy. Sooner or later the certain consequences of forest destruction which is now taking place will force the national government to step in. The question is not merely that of preventing the impoverishment of the immediate localities and the conversion of productive land into a waste of barren rock. The loss of the forest is followed by the loss of the soil and by recurring floods. The headwaters of every important river south of the Ohio and the Potomac and east of the Mississippi including the tributaries of these streams, rise in the southern Appalachians, while the White Mountains feed important rivers of every New England state except Rhode Island. The rainfall of both regions is heavy and distributed throughout the year. . . .

Some effects of denudation.

After denudation, every rain turns the shrunken streams into mountain torrents which devastate property and bear down vast quantities of silt to obstruct navigable rivers. The sand bars thus formed accentuate the effect of alternating high and low water periods, and large government expenditures for dredging and harbor improvements are entailed. The clearing of river channels and harbors in North Carolina, South Carolina, Georgia and Alabama is now being urged. Yet deforestation is only in its first stage. Eventually in

this country, as has been the case in France, the stripped mountains will become so inimical to the public good that the Government will have to take charge of them and reforest them. . . .

The problem is one of national interest.

The question of establishing these reserves is not a local or a state question, but a national question. The interests affected are interstate. The evils which the reserves will check fall most heavily on distant communities, and even upon the National Government. Here again, if we are wise, we shall draw a lesson from French experience. In France, the first efforts to repair the disastrous effects of torrents were made by engineers along the low water courses. Dredging and dams, however, proved at best but temporarily effective. Only when they began to push their work up to the headwaters of the streams did they find themselves on the right road. The Government now puts into the building of levees and the improvement of navigation in rivers and harbors many millions of dollars annually. The reserves constitute a far more economical expenditure for the same purpose in addition to their large contributions to public welfare.

Conclusion.

It is not right to expect the state within which these areas lie to reserve them for the benefit of other states. It is impossible for states which suffer from conditions outside their own territory to remedy them by their own action. There has been set aside in the West, for essentially the same purposes which these reserves will secure, a vast area of reserves created from the national domain and benefitting primarily the people of the West. But the interests involved both in the West and in the East are too broad to be regarded as even sectional merely. The benefits of the proposed reserves will be national benefits and their expenses should be borne by the nation. . . .

160. The conservation of minerals [1]

Some important mineral substances and the necessity of conserving them.

Minerals constitute another important natural resource. Coal, iron, copper, gas, oil, of these and other important mineral substances we formerly possessed abundant supplies. Our supplies of most of these are still great, but the rapidity with which we have been using these substances has of recent years demonstrated the necessity of conservation. In a message to Congress, February 13, 1907, President Roosevelt pointed out the urgent necessity of conserving the natural

[1] From Theodore Roosevelt, *Message to Congress*, February 13, 1907.

resources of the nation. In this message the President made the following recommendations with respect to mineral lands in the United States:

The leasing of mineral lands recommended.

[In a previous message] I recommended to Congress the enactment of such legislation as would provide for title to, and development of, the surface land as separate and distinct from the right to the underlying mineral fuels in regions where these may occur, and the disposal of these mineral fuels under a leasing system on conditions which would inure to the benefit of the public as a whole. I again call the attention of Congress to the importance of enacting such legislation. I care little for details; the prime need is that the system should be established, that from henceforth the nation should retain its title to its fuel resources, and its right to supervise their development in the interest of the public as a whole.

Extent of this system in foreign countries.

Such a leasing system as that proposed represents by no means an untried policy. In the Australian countries during the last fifteen years coal has been mined under a system of government leases, and on conditions so favorable for development that their coal and coke are to-day being sold on the Pacific Coast of both the American continents. In all the great coal-producing European countries, except Great Britain, coal is being mined under government leases. In Great Britain, leases are granted almost entirely by the private land owners, but there as in other countries, the surface culture and the mining operations are conducted independently of each other. In Nova Scotia, British Columbia, India, and other British colonies a government leasing system has been adopted, and is working satisfactorily. . . .

Mineral fuels should be treated as public utilities.

Mineral fuels, like the forests and navigable streams, should be treated as public utilities. This is generally recognized abroad. In some foreign countries, practical control of a large portion of the fuel resources was allowed years ago to pass into private hands; but the existing governments are endeavoring to regain this control in order that the diminishing fuel supply may be safeguarded for the common good, instead of being disposed of for the benefit of a few. . . .

Mineral lands ought not to be sold,

In our own Western States and Territories, the scarcity of both the water and forests has rendered necessary their preservation as public utilities; and the preservation of the forests for the purpose of con-

serving both the water and the timber supply has come to be recognized as the wise and proper policy of the Federal Government. The quantity of high grade mineral fuels in the West is relatively much smaller than that of the forests; and the proper conservation of these fuels is a matter of far-reaching importance. This government should not now repeat the mistakes of the past. Let us not do what the next generation cannot undo. We have a right to a proper use of both the forests and the fuel during our lifetime, but we should not dispose of the birthright of our children. If this government sells its remaining fuel lands, they pass out of its future control.

but rather leased.

If it now leases them we retain control, and a future Congress will be at liberty to decide whether it will continue or change this policy. Meanwhile the government can inaugurate a system which will encourage the separate and independent development of the surface lands for agricultural purposes and the extraction of the mineral fuels in such manner as will best meet the needs of the people and best facilitate the development of manufacturing industries. . . .

A problem which is reserved for future consideration.

Already probably one half of the total area of the high-grade coals in the West has passed under private control. Including both the lignite and the coal areas, these private holdings probably aggregate not less than 30,000,000 acres of coal fields. With the remainder of the lands containing mineral fuels reserved and leased by the government, there will be ample opportunity to determine in the near future which of the two systems — private ownership or the leasing system with general government supervision — will best protect the interests of the people and thus promote the permanent development of the West. . . .

161. The conservation of land [1]

The Reclamation Act of 1902.

A third phase of the conservation movement has to do with safeguarding and enriching our lands. Land conservation involves a variety of measures, including more careful tillage, the use of special crops, the drainage of wet lands, and the reclamation of arid lands. The reclamation of arid lands is of particular importance in the Far West, where vast areas have long been unproductive because of their dryness. In 1902, however, the Reclamation Act provided for the

[1] From the *Congressional Record*, Vol. XXXV, Part VIII, Appendix, p. 254.

construction of extensive irrigation works under the direction of the Secretary of the Interior. In championing the bill which later became the Act of 1902, Hon. Francis G. Newlands of Nevada spoke as follows in the House of Representatives on May 14, 1902:

The extent of the arid region.

The so-called arid region extends from about the one hundredth meridian of longitude to the Pacific coast. Draw a line north and south through the middle of the two Dakotas, Nebraska, Kansas, and Oklahoma, and all to the west of it is either arid or semi-arid, the aridity increasing as the Rocky Mountains are approached. The eastern portion of this great region is semi-arid, while the narrow fringe along the Pacific seaboard is humid. Within the boundaries named thirteen States and three Territories lie wholly or in part, and, excluding Alaska, they constitute nearly one-half of the superficial area of the Republic.

The proportion of this area which might be reclaimed.

It is estimated that they contain about 600,000,000 acres of vacant public land, of which about 60,000,000 acres may be irrigated if the water supply is properly conserved and distributed. In other words, it is possible in the future to actually reclaim for cultivation in this vast region an area about equal to the area of the two states of Illinois and Iowa. The rest of this vast area cannot be cultivated. It will consist largely of mountain ranges and arid plains, for which it will be impossible to obtain sufficient water for irrigation, though they will be useful for grazing. . . .

Nature of the water supply.

The mountainous character of the country would prevent cultivation even were water abundant; but there is only sufficient water for a small part of the level portion of the area. The waters for cultivation must come from the creeks, streams, and rivers which have their sources in the snows of the mountains. These waters must be led away from the streams by lateral canals and ditches, and in order to accomplish this the water must be taken out where damming the river is comparatively easy. The snows which are the source of these creeks, streams, and rivers fall in the winter and melt in the spring and early summer. Most of these snows melt before May, leaving a scanty supply for June, July, and August, the period when the heat is intense, and when the dry air sucks the moisture out of everything, and when moisture is most required for ripening crops. . . .

From these conditions has come the present irrigation development

Reclamation needs.

of the West. The condition of the streams in the period of lowest water was the measure of possible reclamation. The flood waters were of no use, for they were not available when needed for ripening the crops, and it is these flood waters . . . that it is proposed to make available for the arid lands now remaining unsettled. To accomplish this requires the broadest generalization, the study of an entire river, with all its tributaries and their subtributaries; the maintenance of an equal and sustained flow of the river during the planting and growing season, and the utilization of every device upon every part of the river necessary to preserve this equal flow. . . .

The rôle to be played by the Government.

The idea is that the Government should do the primary work of constructing the reservoirs and larger canals, so that the water may be brought within the reach of those who are to settle on the public lands and use it in their reclamation and cultivation. Storage enables the utilization of a greater amount of the torrential waters in irrigating the arid plains, as the stored waters supplement the torrential waters later on and ripen the crops which would otherwise be burnt by the hot sun. Storage involves the treatment of an entire watershed in a scientific way regardless of State lines.

The problem.

The problem is to maintain an equal and sustained flow of the streams, so that the torrential waters may be kept from flowing to waste and may be conserved and let into the stream when the natural supply is exceedingly limited. Very large rivers have numerous tributaries, with their sources in the snows of the mountains. The more water there is stored the greater the extent of the torrential waters that can be utilized in irrigation, for storage guarantees the services of water when it is most needed, and settlers can safely take out the torrential waters in the spring and bring larger areas of land under cultivation when they feel assured that the stored waters will come on later in a period of drought, and furnish the crops with the needed moisture. . . .

162. The legal basis of conservation[1]

Of the numerous aspects presented by the problem of conserving our natural resources, none is more fundamental than the legal.

[1] From Questions submitted by the Senate of the State of Maine to the justices of the Supreme Judicial Court of Maine, March 27, 1907, with the answers of the justices thereon. (103 Maine, 506.)

Economists and social reformers may propose any number of laws providing for the extension of governmental control over forests, water power sites, or mineral lands, but if the Federal or state government has not a clearly-defined right to exercise this control, such proposals may easily prove mischief-making instead of helpful. In this connection an important problem arises over the right of state governments to regulate privately-owned natural resources. Wishing this phase of the situation to be clearly defined, the Senate of the State of Maine in 1907 submitted to the Supreme Court of the commonwealth certain questions as to the right of the legislature to check and prevent the uneconomical use of privately owned resources. The opinion of the Court was that the property rights of the individual are subordinate to the rights of the community, and that the waste of privately owned resources may properly be prevented by state legislation. Some extracts from the opinion of the Court follow:

Importance of the legal basis of conservation.

Opinion of the Maine Supreme Court:

We find that the legislature has, by the constitution, "full power to make and establish all reasonable laws and regulations for the defense and benefit of the people of this state, not repugnant to this constitution nor that of the United States." It is for the legislature to determine from time to time the occasion and what laws and regulations are necessary or expedient for the defense and benefit of the people; and however inconvenienced, restricted, or even damaged particular persons and corporations may be, such general laws and regulations are to be held valid unless there can be pointed out some provision in the state or United States Constitution which clearly prohibits them. . . .

Preliminary statement as to the power of the legislature.

[With regard to the status of private property rights, we refer to the opinion of Chief Justice Shaw, expressed as follows]:

"We think it a settled principle, growing out of the nature of well-ordered civil society, that every holder of property, however absolute and unqualified may be his title, holds it under the implied liability that his use of it may be so regulated that it shall not be injurious to the equal enjoyment of others having an equal right to the enjoyment of their property, nor injurious to the rights of the community. All property in this commonwealth . . . is derived directly or indirectly from the government and held subject to those general regulations which are necessary for the common good and general

Private individuals may not use their property in such a way as to injure the rights of the community.

welfare. Rights of property, like all other social and conventional rights, are subject to such reasonable limitations in their enjoyment as shall prevent them from being injurious, and to such reasonable restraints and regulations established by law as the legislature, under the governing and controlling power vested in them by the constitution, may think necessary and expedient. . . ."

Why the public may control and limit the use of private property.

There are two reasons of great weight for applying [a] strict construction of the constitutional provision to property in land:

First, such property is not the result of productive labor, but is derived solely from the state itself, the original owner;

Second, the amount of land being incapable of increase, if the owners of large tracts can waste them at will without state restriction, the state and its people may be helplessly impoverished and one great purpose of government defeated. . . .

Conclusion of the Court.

The foregoing considerations lead us to the opinion [that the legislature of the state of Maine has the power to enact legislation designed to prohibit, restrict, or regulate the utilization of privately owned natural resources, where such prohibition, restriction or regulation is necessary to the protection of the public interest.]

Questions on the foregoing Readings

1. In what period of our history did the conservation movement begin?
2. What important step toward conservation was taken by President Roosevelt in 1908?
3. What problem was considered by the Conference of Governors?
4. Compare the use of natural resources in the days of Washington with their use in recent times.
5. Why is conservation necessary?
6. What did the committee on resolutions of the Conference of Governors say as to the need of coöperation in the conservation question?
7. What remedial measures were recommended by this committee?
8. Name some factors which explain the rapid decline in the extent of our forest area.
9. What is meant by the statement that the acquisition of forest lands by the Federal Government will be "good business policy"?
10. Discuss the relation of forests to navigation.
11. What are some of the effects of denudation?
12. Is the conservation of forests a national or a local problem?
13. Name some important mineral substances.

14. What method of disposing of mineral lands was recommended by President Roosevelt in 1907?
15. How are mineral lands disposed of in some foreign countries?
16. Why, according to President Roosevelt, ought we not to sell mineral lands?
17. Name some measures which are involved in the conservation of land.
18. When was the Reclamation Act passed?
19. What is the extent of the arid region in the United States?
20. What is the nature of the water supply in this region?
21. What, according to Mr. Newlands, was to be the rôle of the Federal Government in the reclamation of lands in the Far West?
22. Outline the problem of irrigation in this region.
23. What is the importance of the legal basis of conservation?
24. What was the purpose of the Senate of the State of Maine in submitting certain questions to the Supreme Court of the commonwealth?
25. Outline carefully the opinion of the Court with reference to the issue brought up by these questions.

CHAPTER XXVIII

PUBLIC REGULATION OF MONOPOLIES

163. Causes for the growth of trusts [1]

Development of the trust in the period following the Civil War.

After the Civil War, rivalry in many industries was so intense as to lead to "cutthroat" competition and a consequent reduction of profits. For the purpose of securing the economies of large-scale business, and for the sake of securing the advantages of monopoly, many previously-competing businesses combined into what are known as "trusts." What is now known as a "trust" may take a variety of forms, and, in general, the word "trust" is at present used to designate any closely-knit combination which has monopolistic advantages. Some of the causes which led to the trust movement in the period following the Civil War are discussed by Professor Chester W. Wright in the following passage:

Forces responsible for the modern trust movement.

We have in modern capitalistic industry tendencies toward a widening of the market with increased localization and integration, and a steadily enlarging scale of production accompanied by a growing fierceness of competition. The larger the concerns, the smaller their number, the greater their resources for carrying on a fight, the bigger the prize which goes to the winner, and consequently the fiercer becomes the competition and the more excessive its wastes.

Add to this the difficulties arising from the small margin of profit, the more complicated and prolonged industrial processes, the wider market, and the large use of fixed capital . . . and finally add the extra gain which comes from the power of monopoly to extort exorbitant prices, and one understands the forces which are fundamentally responsible for the modern trust movement. . . .

Additional factors:

The reason for many trusts may be found in more immediate causes, which, for the very reason that they are more immediate and

[1] From Chester W. Wright, "The Trust Problem — Prevention versus Alleviation." *Journal of Political Economy*, Vol. XX, 1912, pp. 578–581.

obvious, have often appeared, to the public eye at least, as even more important. . . .

the expectation of profits to the promoter;

It is doubtless true that a considerable number of trusts owe their origin to the profits which it was expected would accrue to the promoter who undertook the task of organizing the trust. This was especially the case in the promotion which went on during the years 1898 to 1901, when the money market and other conditions were particularly favorable. . . .

railroad favors;

Most prominent among the second group of more immediate causes for the growth of trusts — those which I have called special privileges — are railroad favors, tariff duties, and patent rights. In former years railroad favors of one sort or another were doubtless given to many of the trusts. From time to time announcements have been made that these discriminations had been abolished; but frequently (as some later special investigation or prosecution revealed the facts), it has been found that they still existed. However, the evil is undoubtedly much less frequent than formerly and to-day is at best but a minor factor.

tariff duties; and

The tariff is probably of more importance as an aid to the trusts, though I am inclined to believe that its influence has been considerably exaggerated. Probably its chief effect is in enabling trusts, most of which would exist in any case, to exact somewhat higher prices for their products than would otherwise be possible. It should be noted, however, that it is . . . the over-protective tariff which offers the chief incentive for the formation of trusts. It is because the duties are often so much higher than is necessary to maintain the industry that overproduction ensues and the domestic manufacturers are led to combine so as to secure the high profits made possible by the tariff. To enact duties of this character is to do nothing less than to offer a reward for forming a trust.

patent rights.

The importance of patent rights as a basis for trusts probably deserves more attention than it has received. . . .

Factor agreements and discriminating prices.

The third minor group of causes for the growth of trusts includes certain methods of competition, notably factor agreements and discriminating prices. Under such agreements the manufacturer or wholesaler may sell his product on condition that the price which he fixes be absolutely maintained, or on condition that the retailer shall

not deal in the competing product of any rival, or perhaps that he shall not sell such rival product below a certain price. Any concern putting out a product for which there is a considerable demand can use this system, especially the latter form, against its rivals with tremendous power and effectiveness. The practice of discriminating prices . . . is also a powerful weapon for building up and maintaining monopoly control. . . .

The influence of control over large masses of capital.

Closely connected with this is the power exercised by control of credit. . . . There is some reason to believe that a large concern with the close financial alliances which ordinarily accompany it may occasionally find itself in a position where it can control the credit obtainable by a rival at some crucial moment, and through the power thus obtained may force that rival to capitulate, often at a heavy loss, as in the case of the Pennsylvania Sugar Refining Company. There may not be a money trust, but apparently there are times when the power of centralized control over large masses of capital proves of great advantage to a big corporation. . . .

164. A typical trust agreement[1]

The concentration of power due to industrial integration.

From the standpoint of the public welfare, a significant element in the development of great industrial combinations has been the concentration of power. An early method of securing this concentration of power was for a number of concerns to enter a specific agreement which allowed all of their combined resources to be directed as a unit. The most famous of agreements of this kind was the "trust" device, first used by the Standard Oil Company, in 1882. Some of the significant elements in this original trust agreement are given below:

In 1882 a number of oil companies enter an agreement

This agreement [is] made and entered upon this second day of January, A.D. 1882, by and between [more than a dozen oil companies, as well as numerous designated individuals.] . . .

11. The parties hereto do covenant and agree to and with each other, each in consideration of the mutual covenants and agreements of the others, as follows:

[1] From the United States Industrial Commission, *Preliminary Report on Trusts and Industrial Combinations*. Washington, 1900. Vol. 1, pp. 1221–1225.

(1) As soon as practicable a corporation shall be formed in each of the following states, under the laws thereof, to-wit: Ohio, New York, Pennsylvania and New Jersey; . . . to form a limited number of corporations

(2) The purposes and powers of said corporations shall be to mine for, produce, manufacture, refine, and deal in petroleum and all its products, and all the materials used in such business, and transact other business collateral thereto. . . . to carry on the oil business.

(7) All of the property, real and personal, assets, and business of each and all of the [combining] corporations and limited partnerships . . . shall be transferred to and vested in the said several Standard Oil Companies. All of the property, assets, and business in or of each particular State shall be transferred to and vested in the Standard Oil Co. of that particular State. . . . They are to transfer their property to the corporation in their state

(10) The consideration for the transfer and conveyance of the money, property, and business aforesaid to each or any of the Standard Oil Companies shall be stock of the respective Standard Oil Company to which said transfer or conveyance is made, equal at par value to the appraised value of the money, property, and business so transferred. . . . and receive in exchange stock in the said corporation.

111. The trusts upon which said stocks shall be held, and the number, powers, and duties of said trustees, shall be as follows:

(1) The number of trustees shall be nine. [Here follow their names, the first mentioned being J. D. Rockefeller.] . . . The combining businesses to be controlled by nine trustees who shall hold the stock of the combined businesses, and issue to the stockholders trust certificates

(11) The trustees shall prepare certificates, which shall show the interest of each beneficiary in said trust, and deliver them to the persons properly entitled thereto. They shall be divided into shares of the par value of $100 each, and shall be known as "Standard Oil Trust Certificates," and shall be issued subject to all the terms and conditions of this agreement. The trustees shall have power to agree upon and direct the form and contents of said certificates, and the mode in which they shall be signed, attested, and transferred. . . .

(14) It shall be the duty of said trustees to receive and safely keep all interest and dividends declared and paid upon any of the said bonds, stocks, and moneys held by them in trust, and to distribute all moneys received from such sources or from sales of trust property or otherwise by declaring and paying dividends upon the on which the stockholders are to receive dividends.

Standard Trust Certificates as funds accumulate, which in their judgment are not needed for the uses and expenses of said trust. . . .

The trustees to manage and direct the combined businesses.

(15) It shall be the duty of said trustees to exercise general supervision over the affairs of said several Standard Oil Companies, and as far as practicable over the other companies or partnerships, any portion of whose stock is held in said trust. It shall be their duty as stockholders of said companies to elect as directors and officers thereof faithful and competent men. They may elect themselves to such positions as they see fit so to do, and shall endeavor to have the affairs of said companies managed and directed in the manner they may deem most conducive to the best interests of the holders of said trust certificates. . . .

165. Abuse of power by the trust[1]

A chief objection to the trust is that it tends to abuse its power.

Some students of the trust problem are accustomed to say that up to a certain point industrial combination may result in numerous economies. When businesses combine, some of the wastes of competition are avoided. Often combination may bring with it the possibility of more effective management. Up to a certain point, therefore, it may be true that the trust can turn out its product more cheaply than can independent concerns. But even though we grant the economies claimed for the trust, we must recognize that, from the point of view of the public at least, trust development has been accompanied by certain serious evils. Of these evils, the chief is the tendency of the trust to abuse its power. For example, the trust may attempt to further its own interests at the expense of competing businesses, and at the expense of the public. Illustrative of the evil practices of the trust are the following extracts from the indictment of the National Cash Register Company in the case of *United States* v. *Patterson et al.*:

The charge against the National Cash Register Company: Attempts to

[The program of the National Cash Register Company included the following items]:

1. The inducing, hiring, and bribing of employees and ex-employees of [competitors] . . . deceitfully and wrongfully to disclose to said the National Cash Register Company the secrets of the business

[1] From the *United States* v. *Patterson et al.* District Court, S. D., Ohio. W. D. June 26, 1912.

of the concerns by which they were respectively employed, or had been employed. . . . learn the secrets of competitors

2. The inducing, hiring, and bribing of employees of carters, truckmen, express companies, railroad common carriers, telegraph companies, and telephone companies, wrongfully and unlawfully to disclose to said the National Cash Register Company the secrets . . . pertaining to the carriage and transportation of cash registers for such competitors. . . .

3. The instructing and requiring all sales agents of said the National Cash Register Company to ascertain and report . . . all facts and details pertaining to the business and activities of said competitors. . . .

4. The using of the influence of said the National Cash Register Company and of its agents with, and the making of unwarranted and false statements to, banking and other institutions, to injure the credit of said competitors and prevent their securing accommodations of money, credit, and supplies convenient and necessary to the carrying on of their business; and to injure the credit of those competitors.

5. The instructing and requiring of all sales agents of said the National Cash Register Company to interfere with, obstruct, and prevent in every way possible sales of such competitive cash registers by said competitors. . . . Interference with the sales of competitors.

6. The making, in some cases, by said the National Cash Register Company, to such competitors, and to purchasers and prospective purchasers of such competitive cash registers, of threats to begin suits in the courts against them for infringing and for having infringed its patent rights pertaining to its genuine cash registers, when as said defendants each well knew, no such patent rights existed, and no such suits were contemplated or would really be begun, and such threats were made merely to harass such competitors, purchasers, and prospective purchasers. . . . Use of threats,

8. The organizing of cash-register manufacturing concerns and cash-register sales concerns, and the maintaining of them, ostensibly as competitors of said the National Cash Register Company, but in fact as convenient instruments for use in gaining the confidence and obtaining the secrets of said real competitors of said the National Cash Register Company. . . . and bogus concerns.

Winning away the employees of competitors.

9. The inducing, by offers of much greater compensation than they were receiving from said competitors, respectively, agents and servants of said competitors . . . to leave the employment of said competitors . . . to enter the employment of . . . said National Cash Register Company; and this principally for the purpose of embarrassing said competitors. . . .

Attacking the patent rights of competitors.

10. By applying . . . for letters patent of the United States, in some cases upon the cash registers of said competitors and in other cases upon improvements upon such competitive cash registers, and this merely for the purpose of harassing such competitors by interference proceedings and suits and threats to institute such proceedings and suits; and

Encouragement of other tactics of an unfair and unlawful nature.

11. The using of, or originating and using of, and the instructing and requiring of such agents and sales agents of said the National Cash Register Company to use or to originate and use, such other unfair, oppressive, tortious, illegal, and unlawful means, unlawfully, wrongfully, and irresistibly, excluding other concerns beside the National Cash Register Company from engaging in said interstate trade and commerce, as might at any time become, or appear . . . convenient. . . .

166. The Sherman Anti-trust Act of 1890 [1]

Evils of trust development give rise to anti-trust legislation.

Though it did not begin until about 1880, the trust movement proceeded so rapidly that within a few years the trust device had been adopted in a number of important industries. Very soon the activities of some of the trusts began to attract a good deal of criticism, and criticism in turn gave rise to a demand for legislation forbidding industrial monopoly. One result of this demand was the enactment by Congress of the Sherman Anti-trust Act of 1890. Practically the full text of this important measure follows:

In 1890 the Sherman Anti-trust Act declared illegal all combinations in restraint of trade.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SEC. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any

[1] From the *Statutes of the United States, The Federal Anti-trust Law*, July 2, 1890.

such combination or conspiracy shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Monopoly forbidden.

SEC. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several states, or with foreign nations, shall be deemed guilty of a misdemeanor, and on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Geographical scope of the act.

SEC. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such territory and another, or between any such territory or territories and any state or states or the District of Columbia, or with foreign nations, or between the District of Columbia and any state or states or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Relation of the courts to the execution of the act.

SEC. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. . . .

SEC. 5. Whenever it shall appear to the court before which any proceeding under section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpœnas to that end may be served in any district by the marshal thereof.

SEC. 6. Any property owned under any contract or by any com-

Provision for the forfeiture of property.

bination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one state to another, or to a foreign country, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

Legal rights of injured parties.

SEC. 7. Any person who shall be injured in his business or property by any other person or corporation, by reason of anything forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

The words "person" and "persons" defined.

SEC. 8. That the word "person" or "persons," wherever used in this act, shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the territories, the laws of any state, or the laws of any foreign country.

167. A great trust ordered dissolved [1]

Ineffective for twenty years, the Sherman Act proves its strength in 1911

The Sherman Act was designed to curb the illegal activities of the trusts, yet during the first twenty years of its existence, the act was largely a failure. Occasionally the law revealed elements of strength, but it was not until 1911 that it really proved to be an effective weapon against monopoly. In that year the Supreme Court of the United States ordered dissolved two of the greatest trusts in the country, the Standard Oil Company and the American Tobacco Company. In its decision in the case against the latter trust the Court concluded as follows:

The American Tobacco Company ordered dissolved in 1911.

[In the disposal of this case,] we might at once resort to one or the other of two general remedies —

(*a*) the allowance of a permanent injunction restraining the combination [and its constituent parts] from continuing to engage in interstate commerce until the illegal situation could be cured . . . or

[1] From the Supreme Court of the United States, decision in the case of *The United States* v. *The American Tobacco Company and others*, 1911.

(*b*) to direct the appointment of a receiver to take charge of the assets and property in this country of the combination in all its ramifications for the purpose of preventing a continued violation of the law, and thus working out by a sale of the property of the combination or otherwise a condition of things which would not be repugnant to the prohibitions of the act.

Two possible remedies are rejected by the Supreme Court.

But having regard to the principles which we have said must control our action, we do not think we can now direct the immediate application of either of these remedies. We so consider as to the first because in view of the extent of the combination, the vast field which it covers, the all-embracing character of its activities concerning tobacco and its products, to at once stay the movement in interstate commerce of the products which the combination or its coöperating forces produce or control might inflict infinite injury upon the public by leading to a stoppage of supply and a great enhancement of prices. The second, because the extensive power which would result from at once resorting to a receivership might not only do grievous injury to the public, but also cause widespread and perhaps irreparable loss to many innocent people.

Reasons for rejecting these proposed remedies.

Under these circumstances, taking into mind the complexity of the situation in all of its aspects, and giving weight to the many-sided considerations which must control our judgment, we think, so far as the permanent relief to be awarded is concerned, we should decree as follows:

The decision of the Court:

First. That the combination in and of itself, as well as each and all of the elements composing it, whether corporate or individual, whether considered collectively or separately, be decreed to be in restraint of trade and an attempt to monopolize and a monopolization within the first and second sections of the anti-trust act.

The American Tobacco Company violates the act of 1890.

Second. That the court below, in order to give effective force to our decree in this regard, be directed to hear the parties . . . for the purpose of ascertaining and determining upon some plan or method of dissolving the combination and of re-creating, out of the elements now composing it, a new condition which shall be honestly in harmony with and not repugnant to the law.

The trust to be dissolved and reorganized in accordance with law.

Third. That for the accomplishment of these purposes, taking into view the difficulty of the situation, a period of six months is

Time period within which this is to be accomplished.

allowed from the receipt of our mandate, with leave, however, in the event, in the judgment of the court below, the necessities of the situation require, to extend such period to a further time not to exceed 60 days.

The remedy in case dissolution does not take place within this period.

Fourth. That in the event, before the expiration of the period thus fixed, a condition of disintegration in harmony with the law is not brought about, . . . it shall be the duty of the court, either by way of an injunction restraining the movement of the products of the combination in the channels of interstate or foreign commerce, or by the appointment of a receiver, to give effect to the requirements of the statute.

Conclusion.

Pending the bringing about of the result just stated, each and all of the defendants, individuals as well as corporations, should be restrained from doing any act which might further extend or enlarge the power of the combination, by any means or device whatsoever. In view of the considerations we have stated, we leave the matter to the court below to work out a compliance with the law without unnecessary injury to the public or the rights of private property. . . .

And it is so ordered.

168. Significance of the Federal Trade Commission [1]

Additional anti-trust legislation in 1914.

Notwithstanding the strength shown by the Sherman Act in effecting the dissolution of the Standard Oil Company and the American Tobacco Company in 1911, there continued to be agitation for additional legislation. It was thought that our anti-trust legislation should be more specific, and that it should deal more effectively with the early stages of monopoly. In the effort to secure these ends, Congress in 1914 passed two additional anti-trust laws, the Clayton law and the Federal Trade Commission law. Of these two acts, the latter is probably the more significant. The following are excerpts from the Federal Trade Commission Act:

SEC. 1. *Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled,*

That a commission is hereby created and established, to be known as the Federal Trade Commission . . . which shall be composed of

[1] From the *Statutes of the United States*, *Federal Trade Commission Law*, enacted, 1914.

five commissioners, who shall be appointed by the President, by and with the advice and consent of the Senate. Not more than three of the commissioners shall be members of the same political party. . . .

A Federal Trade Commission created.

SEC. 5. . . . The commission is hereby empowered and directed to prevent persons, partnerships, or corporations, except banks, and common carriers subject to the acts to regulate commerce, from using unfair methods of competition in commerce.

It is empowered to prevent unfair methods of competition.

Whenever the commission shall have reason to believe that any such person, partnership, or corporation has been or is using any unfair method of competition in commerce, and if it shall appear to the commission that a proceeding by it in respect thereof would be to the interest of the public, it shall issue and serve upon such person, partnership, or corporation a complaint stating its charges in that respect, and containing a notice of a hearing upon a day and at a place therein fixed at least thirty days after the service of said complaint.

Procedure before the Commission.

The person, partnership, or corporation so complained of shall have the right to appear . . . and show cause why an order should not be entered by the commission requiring such person, partnership, or corporation to cease and desist from the violation of the law so charged. . . . If upon such hearing the commission shall be of the opinion that the method of competition in question is prohibited by this act, it . . . shall issue and cause to be served on such person, partnership, or corporation an order requiring [them] to cease and desist from using such method of competition. . . .

SEC. 6. That the commission shall also have power —

(*a*) To gather and compile information concerning, and to investigate from time to time the organization, business, conduct, practices, and management of any corporation engaged in commerce (excepting banks and common carriers subject to the act to regulate commerce), and its relation to other corporations and to individuals, associations, and partnerships.

Investigating power over corporations.

(*b*) To require, by general or special orders, [such] corporations . . . to file with the commission in such form as the commission may prescribe annual or special, or both annual and special, reports or answers in writing to specific questions, furnishing to the commission such information as it may require as to the organization, business,

Power to require reports.

conduct, practices, management, and relation to other corporations, partnerships, and individuals of the [said] corporations. . . .

Power to investigate the carrying out of anti-trust decrees.

(*c*) Whenever a final decree has been entered against any defendant corporation in any suit brought by the United States to prevent and restrain any violation of the anti-trust acts, to make investigation, upon its own initiative, of the manner in which the decree has been or is being carried out, and upon the application of the Attorney General it shall be its duty to make such investigation. . . .

(*d*) Upon the direction of the President or either house of Congress [the commission shall have power] to investigate and report the facts relating to any alleged violations of the anti-trust acts by any corporation.

Power to recommend readjustment of business.

(*e*) Upon the application of the Attorney General [the commission shall have power] to investigate and make recommendations for the readjustment of the business of any corporation alleged to be violating the anti-trust acts in order that the corporation may thereafter maintain its organization, management, and conduct of business in accordance with law.

Power to make reports to Congress.

(*f*) [The commission shall have the power] to make public from time to time such portions of the information obtained by it hereunder, except trade secrets and names of customers, as it shall deem expedient in the public interest; and to make annual and special reports to the Congress, and to submit therewith recommendations for additional legislation; and to provide for the publication of its reports and decisions in such form and manner as may be best adapted for public information and use. . . .

Questions on the foregoing Readings

1. During what period of our history did the trust appear?
2. Name some forces which have been responsible for the modern trust movement.
3. What has been the influence upon trust development of railroad favors and tariff duties?
4. What has been the influence upon trust development of factor agreements and discriminating prices?
5. What may be said as to the relation between trust development and control over large masses of capital?
6. What industry first made use of the "trust" device?

7. What were to be the purposes and powers of the corporations formed by the adoption of this device?
8. How was the business of the combining concerns to be controlled?
9. Explain the relation between stock and trust certificates as provided for in the trust agreement.
10. What is the great objection to the trust?
11. Outline the charges against the National Cash Register Company with respect to the attempts of this company to learn the secrets of its competitors.
12. How did agents of this company attempt to injure the credit of its competitors?
13. What use did this company make of bogus concerns?
14. What was the chief purpose of these and other unfair tactics adopted by the company?
15. Why was the Sherman Anti-trust Act of 1890 passed by Congress?
16. What did this law say concerning combinations in restraint of trade?
17. What part were the circuit courts of the United States to play in the execution of the law?
18. What redress was allowed persons who had sustained injury as the result of trust activity?
19. In what year did the Sherman Act prove markedly effective?
20. What two great combinations were ordered dissolved in 1911?
21. What, in brief, was the decision of the Supreme Court in the American Tobacco Company case?
22. Why did there continue to be agitation for additional anti-trust legislation after 1911?
23. What two acts were passed in 1914?
24. Outline the powers which the Federal Trade Commission may exercise over business.
25. What additional powers may be exercised by the Commission?

CHAPTER XXIX

PUBLIC OWNERSHIP OF MONOPOLIES

169. Public aspects of public utilities[1]

Some examples of natural monopoly.

The most important examples of natural monopoly are found in those industries which are known as public utilities. Public utilities include gas and electric light works, waterworks, telephone and telegraph plants, and electric and steam railways. Several of these, especially gas and electric light works, and waterworks, are known as *municipal* utilities, because they tend to localize in particular municipalities. With the rapid growth of American cities this class of utilities has attracted more and more attention, both from economists and from students of American government. Some of the public aspects of municipal utilities are discussed in the following selection by a student of American government, Professor John A. Fairlie:

Public aspects of a city water supply.

The public aspects of a city water supply are of fundamental importance. An abundant supply for private consumption and for use in connection with modern drainage systems is a vital factor in promoting the public health, and is also an essential element in the work of fire brigades. Moreover, the distribution system requires the use of public thoroughfares, and the supply works in most cases call into play the governmental power of eminent domain to secure an adequate supply and a continuous right of way for the conduits from the sources of supply to the city. These considerations show that there is a large field of public interest in the administration of city waterworks. On the other hand, the use of water for household and industrial purposes belongs distinctly to the field of private interest. This is recognized by the charges made to the consumer for the use of water, whether furnished by a municipal or private plant. . . .

[1] From John A. Fairlie. *Municipal Administration*. The Macmillan Co., New York, 1901; pp. 279–280, 288–289, 299–300.

Similarities between waterworks and lighting works.

Both gas and electric light works, like waterworks, make use of the public streets, and for gas plants, and also for electric light plants in large cities, this use involves the digging up of the street surface to lay and repair pipes and the repair of the street pavements. The overhead conductors of electricity in other than the largest cities do not involve so great a disturbance of the streets as the underground gas and water conduits. The lighting of streets and public places is of course a distinctively public work, undertaken not merely for convenience, but as a direct aid in the important and fundamental task of the police of the city. In these respects lighting works are on the same general basis as waterworks.

Some differences between waterworks and lighting works.

But in other respects we find some differences. It seems probable that public lighting is a smaller share of the total lighting than public water consumption is of the total consumption; and what is of more importance, private lighting does not possess the same vital public interests that the private water supply has as a sanitary measure. Nor is it necessary in the case of lighting supply plants to make use of the power of eminent domain to condemn private property. The operation of gasworks involves more complicated industrial operations than either waterworks or electric light plants, including the purchase of raw materials, the employment of many skilled workmen, and the use of technical manufacturing processes constantly subject to improvement. Add to these conditions the fact that gas and electric lighting when first introduced were not considered at all as necessaries, but an alternative form of light to the old means, which might or might be adopted by private consumers, and the further fact that for a time both in gas and electricity the complete success of the new methods was problematical, and the explanation for a smaller degree of municipal activity seems to be ample.

On the other hand, recent developments have changed the two conditions last named. The use of either gas or electricity is now almost, if not quite, a necessity in the large cities, and the definitive success of the new methods brings them more easily within the scope of municipal action. [Also], the clear and inevitable tendency of lighting works in each city to consolidate into a single company possessing a practical, and often also a legal, monopoly adds to the demand for public administration or public control of private works. . . .

Public aspects of street railways.

Street railways are to a much less degree under municipal management than either water or lighting works. In explanation we may note that what has been said as to the smaller importance of the public aspects of lighting as compared with water supply holds true in the case of local passenger traffic. There is not the need for resorting to the powers of eminent domain, nor is the problem of transit facilities so closely related to the public health as is the water supply. At the same time the operation of a street railway system requires a much more intricate and involved machinery of employees and of technical skill than does the maintenance of streets or a water supply system. On the other hand, it is true that the street railway, especially in its latest form, involves a more constant distribution of the street surface than the underground conduits for water or gas. This suggests the advantages of municipal ownership of the tracks, which has been advocated by some as the best solution of the problem. . . .

170. Extent of municipal ownership[1]

Causes of the movement toward municipal ownership of local utilities.

Confining our present attention to that class of public utilities which are municipal in character (*i.e.* such utilities as waterworks, street railways and gas and electric light works), it should be noted that two factors have stimulated the movement for public ownership of these utilities. In the first place, such industries are natural monopolies, and tend by their very nature to integrate and combine. In the second place, the social importance of these utilities renders dangerous their natural tendency toward monopoly conditions. The result is a movement toward the municipal ownership of local utilities. The extent of this movement in 1917 is described in the following passage by an advocate of public ownership, Mr. Carl D. Thompson:

Extent of municipal ownership of water works,

. . . At the beginning of the last century, there were 16 water plants in the United States, only one of them municipally owned. By the close of the century there were perhaps 3500 plants, more than half of which were publicly owned and 200 of which had changed from private to public ownership. Practically every one of the larger cities owns its water plants, the only exception being San Francisco. And of all the cities of the United States of 30,000 population and

[1] From Carl D. Thompson, *Municipal Ownership*. B. W. Huebsch, New York, 1917; pp. 1–6.

over, there are 150 municipal to 50 private plants, or three public to one private. . . .

electric

A similarly rapid growth has taken place in electric lighting. The first municipal lighting plant was established in 1881. At that time there were seven private plants. From that time forward the number of municipal plants increased rapidly, until by 1912 there were 1562 municipal plants. Moreover, the percentage of increase of municipal plants has been much greater during the ten years ending with 1912 than that of private plants. . . . Moreover, while there have been 13 plants that have changed from public to private ownership, there have been 170 plants that have changed from private to public ownership. . . .

and gas light plants,

The development of municipal ownership in the field of gas production has been less rapid. And the reasons are obvious. The development of electricity as a mode of lighting is more practical and convenient for municipal purposes, and besides is better suited to small cities where municipal ownership in lighting has had its chief development. . . . However, there has been considerable development even in this direction. There were only nine municipal gas plants in the United States in 1890, and only 15 in 1899. By 1907 there were 25 in the United States and 10 in Canada. Comparing this with the growth of the private plants, the report of the Civic Federation finds that the number of private plants has grown about 48 per cent, and the number of municipal plants 67 per cent, in six years.

and street railways.

The first city in the United States to undertake the municipal ownership of its street car lines was Monroe, La. That city took over its lines about 15 years ago and reports indicate that the lines have been making a surplus of over $16,000 per year in recent years.

St. Louis, Mo., has operated a short electric line in connection with its water works plant for some years, but it is a very small part of the city's transportation system.

San Francisco is the first city of any size to really go into the municipal ownership of its street car lines. After nearly ten years of agitation, and after ten years of struggle in repeated elections, and after encountering and overcoming all sorts of court proceedings and other difficulties, the city finally started its first municipal cars in December, 1912. Since then it has steadily developed its system. . . .

171. The future of municipal ownership[1]

Municipal ownership investigated by the Commission on Public Ownership and Operation.

The agitation for the municipal ownership of local utilities has been accompanied by a number of investigations of the subject. Of these investigations one of the most comprehensive was that conducted for the National Civic Federation by the Commission on Public Ownership and Operation. This Commission, appointed in 1905, made a thorough study of local utilities at home and abroad, and submitted its report in 1907. With respect to the prospects of municipal ownership in this country, the commission offered the following resolutions and recommendations:

Conclusions of the Commission:

Public utilities cannot be regulated by competition.

First, we wish to emphasize the fact that the public utilities studied are so constituted that it is impossible for them to be regulated by competition. Therefore, they must be controlled and regulated by the government; or they must be left to do as they please; or they must be operated by the public. There is no other course. None of us is in favor of leaving them to their own will, and the question is whether it is better to regulate or to operate. . . .

Some utilities demand public ownership,

We are of the opinion that a public utility which concerns the health of the citizens should not be left to individuals, where the temptation of profit might produce disastrous results, and therefore it is our judgment that undertakings in which the sanitary motive largely enters should be operated by the public.

others do not.

We have come to the conclusion that municipal ownership of public utilities should not be extended to revenue-producing industries which do not involve the public health, the public safety, public transportation, or the permanent occupation of public streets or grounds, and that municipal operation should not be undertaken solely for profit.

Provision for future purchase.

We are also of the opinion that all future grants to private companies for the construction and operation of public utilities should be terminable after a certain fixed period, and that meanwhile cities should have the right to purchase the property for operation, lease or sale, paying its fair value.

To carry out these recommendations effectively and to protect

[1] From the Commission on Public Ownership and Operation, *Report of the National Civic Federation on Municipal and Private Operation of Public Utilities*. New York, 1907. Part I, Vol. I, pp. 23–25.

Municipalities should be given the authority to build and operate public utilities.

the rights of the people, we recommend that the various states should give to their municipalities the authority, upon popular vote under reasonable regulations, to build and operate public utilities, or to build and lease the same, or to take over works already constructed. . . . We believe that this provision will tend to make it to the enlightened self-interest of the public utility companies to furnish adequate service upon fair terms, and to this extent will tend to render it unnecessary for the public to take over the existing utilities or to acquire new ones. . . .

In any case, the public should share in the profits of the utilities.

In case the management of public utilities is left with private companies, the public should retain in all cases an interest in the growth and profits of the future, either by a share of the profits or a reduction of the charges, the latter being preferable as it inures to the benefit of those who use the utilities, while a share of the profits benefits the taxpayers.

Factors controlling the success of municipal ownership.

Our investigations teach us that no municipal operation is likely to be highly successful that does not provide for:

First. An executive manager with full responsibility, holding his position during good behavior.

Second. Exclusion of political influence and personal favoritism from the management of the undertaking.

Third. Separation of the finances of the undertaking from those of the rest of the city.

Fourth. Exemption from the debt limit of the necessary bond issues for revenue-producing utilities, which shall be a first charge upon the property and revenues of such undertaking. . . .

172. The evils of railroad development[1]

Rapid development of the railroads.

Let us turn now to the second type of public utilities, *i.e.* the steam railroads. The necessity of adequate transportation was early recognized by both Federal and state governments, and numerous encouragements were extended railroad corporations in the development of transportation facilities. Railroad development proceeded rapidly after 1850, and particularly after the Civil War. The benefits

[1] From the Reports of Committees of the Senate of the United States for the Forty ninth Congress, 1st Session, 1885–1886. *Report of the Committee on Interstate Commerce* Part 1, pp. 180–181.

Benefits and evils.

of this rapid development are beyond measure; on the other hand, the unchecked growth of railroad corporations in time gave rise to numerous complaints. In 1886, a Select Committee of the Senate of the United States reported that the complaints against the railroad system were based upon the following charges:

Complaints against the railroads with respect to rates,

1. That local rates are unreasonably high, compared with through rates.

2. That both local and through rates are unreasonably high at non-competing points, either from the absence of competition or in consequence of pooling agreements that restrict its operation.

3. That rates are established without apparent regard to the actual cost of the service performed, and are based largely on "what the traffic will bear."

discriminations,

4. That unjustifiable discriminations are constantly made between individuals in the rates charged for like service under similar circumstances.

5. That improper discriminations are made between articles of freight and branches of business of a like character, and between different quantities of the same class of freight.

6. That unreasonable discriminations are made between localities similarly situated.

the suppression of free competition,

7. That the effect of the prevailing policy of railroad management is, by an elaborate system of secret special rates, rebates, drawbacks, and concessions, to foster monopoly, to enrich favored shippers, and to prevent free competition in many lines of trade in which the item of transportation is an important factor.

favoritism,

8. That such favoritism and secrecy introduce an element of uncertainty into legitimate business that greatly retards the development of our industries and commerce.

9. That the secret cutting of rates and the sudden fluctuations that constantly take place are demoralizing to all business except that of a purely speculative character, and frequently occasion great injustice and heavy losses.

irresponsibility,

10. That, in the absence of national and uniform legislation, the railroads are able by various devices to avoid their responsibility as carriers, especially on shipments over more than one road, or from

one state to another, and that shippers find great difficulty in recovering damages for the loss of property or for injury thereto.

11. That railroads refuse to be bound by their own contracts, and arbitrarily collect large sums in the shape of overcharges in addition to the rates agreed upon at the time of shipment.

12. That railroads often refuse to recognize or be responsible for the acts of dishonest agents acting under their authority.

13. That the common law fails to afford a remedy for such grievances, and that in cases of dispute the shipper is compelled to submit to the decision of the railroad manager or pool commissioner or run the risk of incurring further losses by greater discriminations. . . .

overcapitalization,

16. That the capitalization and bonded indebtedness of the roads largely exceed the actual cost of their construction or their present value, and that unreasonable rates are charged in the effort to pay dividends on watered stock and interest on bonds improperly issued.

17. That railroad corporations have improperly engaged in lines of business entirely distinct from that of transportation, and that undue advantages have been afforded to business enterprises in which railroad officials were interested.

and extravagance.

18. That the management of the railroad business is extravagant and wasteful, and that a needless tax is imposed upon the shipping and traveling public by the unnecessary expenditure of large sums in the maintenance of a costly force of agents engaged in a reckless strife for competitive business.

173. Government administration of the railroads, 1917–1920[1]

Legislation proving ineffective, Federal control of the roads in war-time is welcomed by some as a prelude to government ownership.

The persistence of the evils referred to in the preceding selection led, after 1880, to a good deal of legislation designed to curb the unfair practices of the railroads. But this earlier legislation was unable effectively to control the railroad situation, and accordingly many advocates of government ownership rejoiced when on December 26, 1917, the President proclaimed the railroads under Federal control. A large number of factors prevents us from drawing any satisfactory conclusion from the war-time record of the roads, but it is interesting to note that one of the obvious benefits of government

[1] From the United States Railroad Administration, *Report of the Director-General to the President, etc.* Washington, 1918; pp. 11–12, 16–21.

ownership was attained, *i.e.* numerous economies of management. These are briefly outlined in the following extract from the report of the Director-General of Railroads to the President, September 3, 1918:

Economies of government administration:

The reorganization of the operating force has been made without any impairment of efficiency and with a reduction in the number of officers required, and in the aggregate of the salaries paid them chargeable to operating expenses. . . . Under private control, salaries as high as $100,000 per annum were paid officers of railroad corporations. Under government control the highest salaries paid are to

reduction of salaries,

Regional Directors (of whom there are but seven), and these salaries range from $40,000 to $50,000 per annum. . . .

simplification of freight classifications,

Hitherto there have been some three different freight classifications applying to interstate traffic, while many states had their own particular classifications applying to interstate traffic. . . . It often happened that a shipment moving through two or more classification territories was subjected to different rules in the course of its journey. . . . Great confusion in rating and classification and many overcharges and claims were the result. To simplify this situation a consolidated classification has been prepared. . . .

consolidations of ticket offices,

Inasmuch as there is no longer any competition for freight and passenger traffic between the various divisions of the government railroad system, I have ordered that solicitation of traffic and special exploitation of passenger routes shall be discontinued. In pursuance of this policy the soliciting forces of the various railroads have been either relieved from duty or assigned to employment in connection with the operating departments, and the separate ticket offices formerly maintained in most of the larger cities have been consolidated. . . . The saving that will be effected as a result of this policy is estimated at $23,566,633. . . .

elimination of unnecessary passenger trains,

After careful study a number of unnecessary passenger trains have been eliminated. Between many of the larger cities of the country served by competing railroads there was formerly a surplusage of elaborately equipped passenger trains. In many cases they started and arrived at the same time. Some of them were but half filled. . . . Many of these unnecessary trains have been eliminated. In the territory west of Chicago and the Mississippi River

passenger trains traversing an aggregate of 21,000,000 miles a year have been done away with. In the Eastern District unessential passenger trains that used to travel 26,420,000 miles per annum have also been eliminated. . . .

better use of passenger

Other reforms that are being worked out in the passenger service include the common use of the same terminals by railroads formerly in competition and using separate terminals. The most conspicuous example of the latter innovation is the use of the Pennsylvania Terminal in New York for through trains via the Baltimore & Ohio between Washington and New York. . . . In this case, as in many others, it has been arranged that trains shall leave at successive hours instead of at the same time, as they often did in the past. . . .

and freight terminals,

The same principle is being applied as rapidly as possible in the consolidation of freight terminals. The saving of switching costs that will result and the greater rapidity with which cars can be loaded and unloaded are obvious. . . .

and the shortening of freight routes.

Recognizing the fact that a straight line is the shortest distance between two points, extensive studies have been made with the purpose of developing well-graded routes for the transportation of freight that will be shorter than those previously in use. Great progress has been made in this direction, especially in the West, and many new through lines are being developed. One of them from Los Angeles to Dallas and Fort Worth is over 500 miles shorter than the routing via the Southern Pacific lines formerly much used. . . .

174. The Transportation Act of 1920 [1]

The railroads returned to private control. The Transportation Act of 1920.

Federal administration of the nation's railroads proved to be short-lived, the roads being returned to private control in the spring of 1920. However, government administration had emphasized the desirability of certain changes in the legislation regulating railroads. Accordingly, the Transportation Act of 1920 was passed. This law was designed to safeguard the roads during the readjustment period after the war, and to take advantage of some of the lessons of government administration. Some of the significant provisions of the Transportation Act of 1920 follow:

[1] From the *Statutes of the United States, Transportation Act of 1920*, Sections 401, 405, and 407.

Duty to furnish safe and adequate car service,

SEC. 401 . . . (11) It shall be the duty of every carrier by railroad subject to this Act to furnish safe and adequate car service, and to establish, observe, and enforce just and reasonable rules, regulations, and practices with respect to car service. . . .

and to supply coal mines with cars.

(12) It shall also be the duty of every carrier by railroad to make just and reasonable distribution of cars for transportation of coal among the coal mines served by it, whether located upon its line or lines or customarily dependent upon it for car supply. . . .

Increased powers of the Interstate Commerce Commission in emergencies.

(15) [In case of shortage of equipment, congestion or other emergency, the Interstate Commerce Commission may] (*a*) suspend the operation of any or all rules . . . for such time as may be determined by the Commission; [and (*b*) may] make such just and reasonable directions with respect to car service, without regard to the ownership as between carriers of locomotives, cars and other vehicles, during such emergency as in its opinion will best promote the service in the interest of the public. . . . [In pursuance of this power, the Commission may] require such joint or common use of terminals . . . as in its opinion will best meet the emergency and serve the public interest. . . . [The Commission may also, in such case,] give directions for preference or priority in transportation, embargoes, or movement of traffic under permits, at such time and for such periods as it may determine. . . .

(16) Whenever the Commission is of opinion that any carrier by railroad subject to this Act is for any reason unable to transport the traffic offered it so as properly to serve the public, [the Commission may] make such just and reasonable directions with respect to the handling, routing, and movement of the traffic of such carrier . . . as in the opinion of the Commission will best promote the service in the interest of the public. . . .

The Commission given power to control the extension and abandonment of lines.

(18) [Hereafter no railroad] shall undertake the extension of its line of railroad, or the construction of a new line of railroad, or shall acquire or operate any line of railroad, or extension thereof, . . . unless and until there shall first have been obtained from the Commission a certificate that the present or future public convenience and necessity require or will require the construction, or operation . . . of such additional or extended line of [railroad. And] no carrier by railroad . . . shall abandon all or any portion of a line of railroad,

or the operation thereof, unless and until there shall first have been obtained from the Commission a certificate that the present or future public convenience and necessity permit of such abandonment. . . .

Interchange of facilities.

SEC. 405 . . . (3) All carriers . . . shall, according to their respective powers, afford all reasonable, proper, and equal facilities for the interchange of traffic between their respective lines, and for the receiving, forwarding, and delivering of passengers or property to and from their several lines and those connecting therewith. . . .

Common use of terminals.

(4) If the Commission finds it to be in the public interest and to be practicable, without substantially impairing the ability of a carrier owning or entitled to the enjoyment of terminal facilities to handle its own business, it shall have power to require the use of any such terminal facilities . . . by another carrier or other carriers. . . .

The Commission empowered to plan the consolidation of the nation's railroads.

SEC. 407 . . . (4) The Commission shall as soon as practicable prepare and adopt a plan for the consolidation of the railway properties of the continental United States into a limited number of systems. In the division of such railways into such systems under such plan, competition shall be preserved as fully as possible, and wherever practicable the existing routes and channels of trade and commerce shall be maintained. . . .

Questions on the foregoing Readings

1. Give some examples of natural monopoly.
2. Discuss the public aspects of a city water supply.
3. What are some (a) similarities and (b) differences between waterworks and lighting works?
4. Discuss the public aspects of street railways.
5. What two factors have stimulated the movement for the municipal ownership of local utilities?
6. What is the extent of municipal ownership with respect to water works?
7. Why has the movement been relatively slow in the manufacture of gas?
8. What is the extent of municipal ownership in the street railway business?
9. What did the Commission on Public Ownership and Operation conclude as to which industries should be operated by the public, and which should not be so operated?
10. What, according to the Commission, are the chief factors which will determine the future development of municipal ownership?
11. Name some complaints against the railroads with respect to rates.
12. What charges were brought against the railroads with respect to discriminations?

13. What is meant by saying that formerly the railroads avoided their responsibility as carriers?
14. What charge was brought against the railroads with respect to extravagance?
15. During what period of our history were the railroads placed under governmental control?
16. What, according to the Director-General of the Railroads, were the economies of governmental administration with respect to the elimination of unnecessary passenger trains?
17. What saving was effected in the use of ticket offices?
18. How were passenger and freight terminals utilized more advantageously under government administration?
19. Name an important saving with respect to the utilization of freight routes.
20. What important railroad legislation was enacted in 1920?
21. What did this act say with regard to the duty of common carriers to furnish car service?
22. How did the act increase the powers of the Interstate Commerce Commission in time of emergency?
23. Explain the extent to which the act gave the Commission control over the extension and abandonment of lines.
24. What did the act say regarding the use of terminals by carriers not owning those terminals?
25. What provision was made for the consolidation of the nation's railroads?

CHAPTER XXX

THE TARIFF

175. The doctrine of comparative advantage[1]

The doctrine stated.

If we assume free trade to exist among the nations of the earth, to what type of industries will a particular country devote itself? It might be answered that a country will devote itself to those industries in which it has an advantage over other countries. According to this answer, if the United States could grow wool more cheaply than can any other countries, we would tend to specialize in wool growing. But this does not necessarily follow, for if the United States is *better* fitted to raise, say, wheat, than to grow wool, then we will tend to import wool from other countries, while we specialize in wheat cultivation. This is in conformity with the *doctrine of comparative advantage*, according to which a country tends to devote its land, labor, and capital to those industries in which it has, not merely an advantage, but a *greater* advantage than it has in any other industries. The doctrine of comparative advantage is discussed by Professor Fred M. Taylor in the following passage:

The doctrine applied to the case of the individual.

Here is a lawyer who very likely can mow his lawn, cultivate his garden, and take care of his furnace much better than the persons whom he hires to do these things. But what he does is to devote himself to his profession, and buy the services named from other people; and of course he acts wisely in so doing. It is clear that he gains most by devoting himself to the thing for which he is best fitted. He is not interested in the fitness or unfitness of his neighbor as compared with himself, but rather in the superiority of his own fitness in one line as compared with his fitness in another line. So long as he can find a market for his output, it is better for him to devote his time to doing the things for which he is preëminently fitted, and get his

[1] From Fred M. Taylor, *Principles of Economics*. University of Michigan Press, Ann Arbor, Mich., 1913; pp. 75–77.

supplies of other things from his neighbors, even though he can make those other things better than they.

The doctrine applied to regional trade.

It is evident that in this respect the case of the community or the nation is like that of the individual. The upper peninsula of Michigan produces little but copper and iron, getting most other goods through exchange with other commodities. Yet it would be easy to prove that this section is really better fitted to produce some of the things which it buys than the sections from which it buys them. The explanation is to be found in what has long been known as the [doctrine of comparative advantage.]

An illustration from trade between

[Let us illustrate the doctrine with reference to international trade.] Letting labor represent all real costs, suppose that in England the cost of a ton of iron is 25 days' labor and the cost of a yard of broadcloth is 5 days' labor; while in America the cost of iron is 16 days' labor and that of broadcloth 4 days' labor. . . .

England

Since in England a ton of iron costs five times as much as a yard of cloth, it will naturally tend to be worth the same as five yards of cloth; under which conditions England can afford to give iron for cloth if, and only if, she can get more than five yards per ton; or trade cloth for iron if, and only if, she can get it with less than five yards per ton.

and America.

In America, on the other hand, a ton of iron tends to be worth four yards of cloth; under which conditions America can afford to trade iron for cloth if, and only if, she can get more than four yards per ton; or to trade cloth for iron if, and only if, she can get it with less than four yards.

But the first hypothesis for England and the second for America are plainly shut off. England cannot get more than five yards of cloth for iron, since in America it is worth only four yards. So America cannot buy iron with less than four yards of cloth since it is worth five yards in England. On the other hand, the second hypothesis for England and the first for America fit each other perfectly. England can get iron for less than five yards, since it is worth only four in America; and America can sell iron for more than four yeards of cloth, since it is worth five in England. Accordingly, under the conditions supposed, an exchange of English cloth for American iron would be profitable.

It goes without saying that if one nation is absolutely inferior to its neighbor in respect to the production of one commodity and absolutely superior in respect to the production of another, then, obviously, the comparative costs of these commodities in one country are different from their comparative costs in the other, and so exchanging them will pay.

Conclusion.

But, as the argument above has shown, it is equally clear that if a nation is absolutely superior to another in the production of each of two commodities, it will produce the one in which its superiority is greater, and will import the latter. Likewise, if a nation is inferior to its neighbor in each of the two commodities, it will produce the one in which its inferiority is less, and import the other. . . .

176. The nature of the tariff [1]

What would happen if there were no artificial barriers to international trade?

Suppose, in the case given in the preceding selection, that there were no artificial barriers to the exchange of cloth and iron between England and this country. In such an event, economic considerations would determine the extent and nature of this international trade. In the case cited above, we should attempt to adjust our production in such a way as to produce all the iron England needed, while England would tend to specialize in the manufacture of cloth for our consumption. But the international exchange of products is not always unfettered; in many instances artificial restrictions are replaced upon such exchange, that is to say, a tax or duty known as a tariff is levied upon the goods of foreign nations as they enter a particular country for sale. The nature of the tariff is briefly described by Professor Alvin S. Johnson in the following language:

The tariff.

Two reasons for the regulation of international trade.

Since early modern times a great part of the energy of governments has been expended upon the regulation of international trade. The reason for such regulation has been twofold. In the first place, there is a deep-rooted belief in the people of every nation that the national prosperity may be furthered by restrictions upon trade with foreigners. In the second place, such trade has long been recognized as a convenient and appropriate source of public revenue.

A century ago the policy of prohibiting the importation of some

[1] From Alvin S. Johnson, *Introduction to Economics*. D. C. Heath & Co., 1909; pp. 348–350.

How undesirable goods are kept out of a country.

classes of goods, and the exportation of other classes, was widely followed. At present this policy has practically fallen in disuse. Some of the states of eastern Europe prohibit the exportation of grain when the supply appears to be insufficient to keep the people of those states from starving. Most countries prohibit the importation of certain commodities that are believed to menace the health of the consumer. Omitting such exceptional cases, however, we may say that the regulation of foreign trade is everywhere carried on under the guise of taxation. If we wish to prohibit the importation of cotton from Egypt, we place such high taxes upon imports of Egyptian cotton that no one finds it worth while to import it.

Our tariff problem relates solely to taxes on imports.

Taxes on foreign trade may be levied upon either imports or exports or upon both. Export taxes are generally unpopular, because of the common belief that it is a good thing to export as many goods as possible. In the United States export taxes are prohibited by the Constitution. We shall, therefore, confine our study to taxes on imports.

Duties may be for revenue, or for protective purposes.

[The difference between taxes levied for revenue, and taxes levied for protection may be illustrated as follows]: Before the annexation of Porto Rico all the coffee used in the United States came from foreign soil. A tax (or "duty") of, say, five cents a pound under the conditions would have discouraged importation in only a slight degree. [In such a case the tax would constitute a "revenue" tariff.]

A duty of $20 a ton on steel, on the other hand, would practically prohibit the importation of steel. . . . Suppose that we can produce steel at $15 a ton, while in some foreign country it can be produced at $12. If the cost of bringing steel from the foreign country is $2 a ton, foreign producers can sell steel here at lower prices than our own producers can afford to take. But if foreign steel is compelled to pay a duty of $20 a ton, none of it can be sold here, unless the American producers combine and force steel up to the price of $34 a ton. Such a duty, since it "protects" domestic producers against foreign competition, is known as a protective duty. . . .

Revenue duties may afford some protection,

Of course a duty the aim of which is the raising of revenue may be incidentally protective. Thus if we were to levy a duty on imported coffee, it would "protect" the coffee growers of Porto Rico.

On the other hand, protective duties may incidentally yield a

revenue. In the case employed above, if the duty on foreign steel had been $1 instead of $20, foreign steel would have continued to be imported, and thus a revenue would have been obtained. At the same time the foreigner would have been prevented from underselling the American; accordingly, the latter would have been protected. Most of our duties are protective, but incidentally yield a revenue, as they are not high enough to prevent importation altogether.

and protective duties yield revenue.

The schedule of all duties levied by a country is known as the "tariff." A tariff consisting of duties whose main object is the raising of a revenue is known as a revenue tariff. . . . A protective tariff consists mainly of duties whose purpose is the protection of domestic producers against foreign competition. Such a tariff has been in force in the United States since early in the nineteenth century; its character has been most strongly marked since the Civil War.

Conclusion.

177. The United States Tariff Commission[1]

In the United States, and in other highly industrial countries in which the protective principle is intrenched, a great deal of time and ingenuity must necessarily be expended upon the determination of tariff policies and administration. Congress enjoys the privilege of legislating on tariff questions, but there has long been need of some agency which would supply the national legislature with adequate information on tariff questions. In 1916 there was an attempt to fill this need by the creation of the United States Tariff Commission. This Commission consists of six members appointed by the President for twelve years, not more than three of whom may belong to the same political party. The work of the Commission was described in 1920 by its chairman, Thomas W. Page, as follows:

A Tariff Commission created to facilitate tariff legislation.

The United States Tariff Commission has no administrative duties whatever. It was created to make investigations, assemble and digest information, and lay the results before the President and Congress. The Tariff Commission is required to respond to any request made upon it by the President, the Congress as a whole, either house

General purpose of the Commission.

[1] From the National Tax Association, *Proceedings of the Thirteenth Annual Conference on Taxation*, held at Salt Lake City, September 6–10, 1920. New York, 1921; pp. 221–224.

of Congress, the Finance Committee of the Senate, and the Committee on Ways and Means of the House of Representatives. It is contemplated that these requests will be for information. Thus far, I may say, the requests have been, in the main, limited to this field. . . .

Duties of the Commission:

The most important of [the duties of the Commission] may be grouped under three heads:

The codification and simplification of the customs administrative laws.

First, the Commission is required to investigate the operation and the form of the law actually in force with a view to ascertaining whether the true intent of Congress is being carried out. It may surprise you to know that no codification or attempt at classifying and elucidating our customs administrative laws has been made in this country for more than a century. The law has been gradually built up by the imposition of one statute upon another, often without adequate consideration of the operation of the acts already in force, with the result that conflict and confusion have often prevented the proper enforcement of the provisions as intended by Congress. . . . The Tariff Commission, therefore, as one of its first activities codified the law, redrafted it in simple form, and prepared a report which it submitted to Congress. . . .

The study of foreign tariffs.

The second group of duties of the Tariff Commission deals with the relation of our tariff to foreign tariffs. This bids fair to be a field of great importance and of intense interest. Tariff policies of the whole world are in process of being remade since the war. . . . In revising our tariff Congress needs explicit and ready information as to the policies and legislative measures of the nations with which we trade. This country and others have long looked upon the tariff as a means of preventing discrimination and unfair treatment, and it will be necessary for Congress to know in detail what is the treatment of our commerce by other countries when it comes to framing a new tariff bill. . . .

Effects of the tariff upon American industries.

The third, and in some respects the most important of all the duties devolving on the Tariff Commission, consists in investigating the effects of the tariff on American industries and in making such a survey of the conditions surrounding these industries as will show when the need exists for tariff revision.

Thus far the Commission has covered nearly half of the items

mentioned in the tariff and a large number of equally important items that are not mentioned by name. The information assembled is recorded for each item in what we call a Tariff Information Survey and each survey is intended to contain in regard to the item it covers all the facts that are pertinent to the tariff. . . .

A commodity survey necessary.

With some items an important fact would consist in explaining what the thing under consideration really is. In practically every schedule occur the names of commodities that are commercially dealt in, but the nature and uses of which are unknown to most citizens and to most Congressmen, so that we begin our surveys with the description of the product concerned and a statement of its chief uses.

How the Commission gathers information concerning commodities.

We proceed to consider the domestic production of the article; the materials out of which it is made, whether they have to be imported, or are produced in this country; the nature of the equipment used in the industry, whether foreign or domestic; a sufficient description of the methods of production to give to the Congressmen and the citizen some idea of what the industry is like; and then we study the organization of the industry, whether it is conducted on a large scale, under highly centralized control as, for example, in the meat packing business, or whether it is widely distributed in small scale units under individual ownership, as is for the most part the case with the fruit and vegetable packing industry. . . .

[We also] show the amount of production and give an estimate of the domestic consumption with a view to showing whether the domestic industry has a capacity to satisfy the domestic demand, or whether imports in considerable quantities are necessary. The latter case might well be illustrated by reference to woolgrowing, many millions of pounds of wool being necessarily imported. Naturally we also study the amount and character of the exports, if there are any. . . .

The question of whether or not imports are necessary.

178. Complexity of the tariff[1]

The foregoing selection gives some idea of the way in which the tariff problem may be attacked in a highly industrial country in which the protective principle is intrenched. The difficulties confronting

Numerous commodities figure in tariff legislation.

[1] From the *Statutes of the United States, Tariff Act of 1913.*

Congress and the U. S. Tariff Commission, and the complexities of a tariff measure as finally enacted, may be partially appreciated when we consider the large number of commodities which must be dealt with in detail. In such a country as the United States, tariff measures are so long and detailed that a single tariff act would, if bound in book form, make a fair-sized volume. A typical tariff act, as passed by Congress, includes a number of schedules, under each of which is grouped a bewildering number of commodities, many of them unfamiliar to the average person. Something of the large number of commodities figuring in such a measure may be shown by the following extracts from the tariff act passed by Congress in 1913:

Schedule A — Chemicals, Oils, and Paints

The duty on chemicals, oils and paints;

1. Acids: Boracic acid, $\frac{3}{4}$ cent per pound; citric acid, 5 cents per pound; formic acid, $1\frac{1}{2}$ cents per pound; gallic acid, 6 cents per pound; lactic acid, $1\frac{1}{2}$ cents per pound; oxalic acid, $1\frac{1}{2}$ cents per pound; pyrogallic acid, 12 cents per pound; salicylic acid, $2\frac{1}{2}$ cents per pound; tannic acid and tannin, 5 cents per pound; tartaric acid, $3\frac{1}{2}$ cents per pound; all other acids and acid anhydrides not specially provided for in this section, 15 per centum ad valorem. . . .

Schedule B — Earths, Earthenware, and Glassware

earths, earthenware, and glassware;

79. Earthenware and crockery ware composed of a non-vitrified absorbent body, including white granite and semi-porcelain earthenware, and cream-colored ware, and stoneware, including clock cases, with or without movements, pill tiles, plaques, ornaments, toys, charms, vases, statues, statuettes, mugs, cups, steins, lamps, and all other articles composed wholly or in chief value of such ware; if plain white, plain yellow, plain brown, plain red, or plain black, not painted, colored, tinted, stained, enameled, gilded, printed, ornamented or decorated in any manner, and manufactures in chief value of such ware not specially provided for in this section, 35 per centum ad valorem; if painted, colored, tinted, stained, enameled, gilded, printed, or ornamented or decorated in any manner, and manufactures in chief value of such ware not specially provided for in this section, 40 per centum ad valorem. . . .

Schedule C — Metals and Manufactures of . . .

105. Boiler or other plate iron or steel, and strips of iron or steel, not specially provided for in this section; sheets of iron or steel, common or black, of whatever dimensions, whether plain, corrugated or crimped, including crucible plate steel and saw plates, cut or sheared to shape or otherwise, or unsheared, and skelp iron or steel, whether sheared or rolled in grooves, or otherwise, 12 per centum ad valorem. . . . metals and metal manufactures;

Schedule D — Wood and Manufactures of . . .

169. Cedar commercially known as Spanish cedar, lignum-vitae, lancewood, ebony, box, granadilla, mahogany, rosewood, and satinwood; all the foregoing when sawed into boards, planks, deals, or other forms, and not specially provided for in this section, and all cabinet woods not further manufactured than sawed, 10 per centum ad valorem; veneers of wood, 15 per centum ad valorem. . . . wood and wood manufactures;

Schedule E — Sugar, Molasses, and Manufactures of . . .

180. Sugar candy and all confectionery not specially provided for in this section, valued at 15 cents per pound or less, 2 cents per pound; valued at more than 15 cents per pound, 25 per centum ad valorem. The weight and the value of the immediate coverings, other than the outer packing case or other covering, shall be included in the dutiable weight and the value of the merchandise. . . . sugar, molasses, and manufactures of these substances;

Schedule G — Agricultural Products and Provisions . . .

217. Apples, peaches, quinces, cherries, plums, and pears, green or ripe, 10 cents per bushel of fifty pounds; berries, edible, in their natural condition, $\frac{1}{2}$ cent per quart; cranberries, 10 per centum ad valorem; all edible fruits, including berries, when dried, desiccated, evaporated, or prepared in any manner, not specially provided for in this section, 1 cent per pound; comfits, sweetmeats, and fruits of al kinds preserved or packed in sugar, or having sugar added thereto or preserved or packed in molasses, spirits, or their own juices, if containing no alcohol, or containing not over 10 per centum of alcohol, 20 per centum ad valorem. . . . agricultural products and provisions.

Schedule I — Cotton manufactures . . .

cotton manufactures;

258. Curtains, table covers, and all articles manufactured of cotton chenille, or of which cotton chenille is the component material of chief value, tapestries, and other Jacquard figured upholstery goods, composed wholly or in chief value of cotton or other vegetable fiber; any of the foregoing, in the piece or otherwise, 35 per centum ad valorem; all other Jacquard figured manufactures of cotton or of which cotton is the component material of chief value, 30 per centum ad valorem. . . .

Schedule M — Papers and Books . . .

papers and books;

326. Writing, letter, note, drawing, handmade paper and paper commercially known as handmade paper and machine handmade paper, japan paper and imitation japan paper by whatever name known, and ledger, bond, record, tablet, typewriter, and onionskin and imitation onionskin, papers calendered or uncalendered, whether or not any such paper is ruled, bordered, embossed, printed, lined, or decorated in any manner, 25 per centum ad valorem. . . .

Schedule N — Sundries . . .

and sundries.

337. Bristles, sorted, bunched, or prepared, 7 cents per pound. . . .

344. Firecrackers of all kinds, 6 cents per pound. . . .

350. Gun wads of all descriptions, 10 per centum ad valorem. . . .

372. Moss and sea grass, eelgrass, and seaweeds, if manufactured or dyed, 10 per centum ad valorem. . . .

375. Violin rosin, in boxes or cases or otherwise, 10 per centum ad valorem. . . .

179. Trickery in tariff legislation[1]

Factors encouraging trickery in tariff legislation.

Several factors combine to encourage trickery in the framing of tariff legislation. In the first place, a tariff bill is generally such a detailed and complex measure, and Congressmen are such busy people, that very few members of the National Legislature can have any amount of direct, personal knowledge of the subject matter of the bill.

[1] From H. Parker Willis, *The Tariff of 1909*. Journal of Political Economy, Vol. XVII, No. 9, November, 1909, pp. 597–611. (Adapted.)

In the second place, such practices as log-rolling, or the trading of votes permit Congressmen to favor the tariff needs of the particular locality which they represent, even to the exclusion of the tariff needs of the country as a whole. In the third place, various industrial interests attempt to influence tariff legislation by means of lobbying, false information, and other devices. In the fourth place, a tariff bill is so intricate that the real significance of many of its provisions may be disguised or hidden from the public, a circumstance which allows tricksters to avoid the public wrath. Some tricks common to tariff making in the United States are presented in the following selection by H. Parker Willis:

Difficulty of ascertaining the difference between two tariff bills.

A superficial comparison of two tariff bills gives very little clue to the differences between them. An accurate count of the number of increases and decreases in the later, as compared with the earlier bill, throws no light upon the larger question of whether the revision was an upward or a downward revision. This method is important only because of its suggestion of a method for proving to superficial observers that there had been an upward or a downward revision. Real changes and their effects can be determined only by examining rates on particular commodities in view of a knowledge of all the conditions surrounding the production of these commodities.

The Act of 1909 appeared substantially to reduce the level of duties, but in reality it did not.

This can be well illustrated by reference to the tariff of 1909. The statement has been repeatedly made that this tariff substantially reduced the level of duties. The conclusion is established by the arithmetical process of counting advances and reductions. It fails, however, to take into consideration the fact that most of the duties reduced were upon commodities which are produced in this country for export. In such cases tariff duties were purely nominal. They can in the very nature of things furnish no protection, because there is nothing to protect against. On the contrary, the increases were upon goods which needed, or at any rate could profit by, advances.

Some illustrations.

To take a few illustrations: In Schedule A the duties on most acids were cut, as well as upon ammonia, borax, and ether. On drugs, however, which were in a position to profit, substantial advances were made. In Schedule B the rates were reduced on firebrick, marble, onyx, granite, and other non-portable articles. On pumice

stone and certain grades of glass, duties, however, were raised. In Schedule C the reductions in nominal duties were very large, that on iron ore dropping from 40 to 15 cents. Yet upon the more expensive and finished metal products there were material advances.

Fooling the farmer.

The best examples in the bill, however, are contained in Schedule G, dealing with agricultural products, of which we export very large surpluses. Neglecting the obvious facts of the grain trade, Congress tried to give the impression of great care for the farmer. Thus on broom corn, which had been free, a duty of $3 a ton was imposed; the rate on buckwheat flour was raised from 20 to 25 per cent; on oats from 15 to 20 cents a bushel. Hops were advanced from 12 to 15 cents a pound. For some obscure reason the duty on cabbages was dropped from 3 to 2 cents. Nursery stock and fruits received a general raise. Congress, of course, did not overlook the opportunity for dealing the usual "blow at the beef trust" *by reducing the duty which it did not need.*

Subtle devices which found their way into the bill.

But many devices much more subtle than these found their way into the bill. Many changes were made in the unit of measurement for customs purposes. Electric lighting carbons, for instance, which had been 90 cents per hundred, were now made 65 cents per hundred feet on certain grades and 35 cents on other grades, the only kind imported in practice being dutiable at the higher rate. A provision in the cotton schedule that in counting threads, upon the number of which the rate of duty depended, "all the warp and filling threads" should be included, operated practically to double the duties upon some classes of goods, insomuch as, under the former method of counting, "double yarns," in which the thread is twisted together out of two or more yarns, have been counted as a single thread. The enormous concession made to the public by the reduction of the tariff on sugar by one-twentieth of a cent of a pound, a reduction which could have no influence on price, was the mask for changing the method in weighing sugar, which in itself amounted to a substantial increase in duty.

Conclusion.

These examples by no means cover the act. In fact it is doubtful whether all the tricks in the bill will ever be discovered. However, they are typical of the kinds of tricks that are incorporated in the American tariff bill. . . .

180. Relation of the tariff to national prosperity[1]

The tariff the subject of bitter political controversy.

As might be surmised from the preceding selection, the tariff is the subject of much political controversy, indeed, no other issue in American history since the Civil War has given rise to so much political contention. Each of the two great parties has a pretty well defined tariff policy, so that it is possible to predict with some assurance the effect upon the tariff of a change of administration. In general, the Democratic party has long stood for a relatively low tariff, and the Republican party for a greater degree of protection.

Conflicting claims as to the relation between the tariff and national prosperity.

Each of the two great parties attempts to prove the soundness of its tariff principles, and to demonstrate the unsoundness of the principles advanced by its opponents. In political discussions the claim is often advanced that the prosperity of the country depends upon low or high duties, as the case may be. Thus the Democratic party had repeatedly declared that the Republican policy of high duties retards national development and imposes a heavy burden upon the consumer; in turn the Republican party has insisted that the Democratic tariff policy breeds panics and hard times, while the Republican policy is responsible for the unparalleled prosperity of the United States since the days of the Civil War. As a matter of fact, the factors involved are so numerous that many impersonal observers believe it impossible to say just what is the relation between the tariff and our national prosperity. It is interesting to note, however, that a leading authority on the tariff, Professor Frank W. Taussig, believes that there is no definite relation between the tariff and national prosperity. He says:

The protective policy.

In the United States a severely protective tariff was maintained for half a century after the Civil War. The financial exigencies of the war caused high duties to be levied, and in subsequent years these were retained. A rigid and all-inclusive system of protection grew up, and persisted without serious modification (barring a brief reaction in 1894–97) until 1913, when a considerable general reduction was made.

The economic effects of this system it is impossible to follow em-

[1] From Frank W. Taussig, *Principles of Economics*. The Macmillan Co., New York, 1921. Vol. I, pp. 538–540.

Our prosperity not due to continued protection, but to

pirically. We have seen that its effects on the terms of international exchange are so interwoven with those of other factors that no unraveling is possible. Even more baffling is the task of following or measuring its effects on general prosperity. The protectionists, on this subject as on the rate of wages, have preached and protested that all goods things come from their tariff. Such talk results naturally from the exigencies of partisan conflict and the need of simple arguments for the mass of voters. So loud and persistent has been the talk that for many persons, even for many who are not unintelligent or uneducated, it has become an article of faith that the prosperity of this country rests on the protective tariff.

a multitude of other factors.

Yet there is no greater delusion. A multitude of factors explain our general welfare — vast resources, a far-spread division of labor within the country, a free, active, and intelligent population. Has not this North American region been for centuries, under all sorts of economic and political conditions, the envy of the world?

But to trace in detail the part played by any one factor in promoting or retarding the enviable outcome is well-nigh impossible. Certain it is that, so far as the tariff is concerned, we must rely on general reasoning. The first and obvious effect of protection is to turn industry into less advantageous channels; and there is, in my judgment, no good case to rebut this general conclusion and to establish a balance of gain, from such a tariff system as the United States has had since the Civil War. . .

The extent to which manufacturing depends upon the tariff is exaggerated by both protectionists

The extent to which manufacturing industry in the United States is dependent on the tariff system is vastly exaggerated by the protectionists. One would suppose, from their doleful predictions, that not a chimney would smoke but for the tariff. In fact, the United States is certain to be a great manufacturing country under any conditions. So much is assured by its wonderful resources of coal and minerals and by the ingenuity and enterprise of its people. . . .

and free traders.

But this same consideration indicates that the free traders went too far in ascribing ill effects to all the parts of the protective system. It did not change the course of industry as far as their charges implied. The country would be prosperous, and would have greatly diversified industries, without a high tariff as certainly as with it.

Questions on the foregoing Readings

1. What is meant by the doctrine of comparative advantage?
2. Illustrate the doctrine with reference to an individual.
3. Illustrate the doctrine with reference to trade between different regions of the same country.
4. Explain clearly how the doctrine would apply to trade between England and America with respect to cloth and iron.
5. What would happen if there were no artificial barriers to the exchange of products between countries?
6. Give two reasons for the regulation of international trade.
7. What does the Constitution say as to export taxes?
8. Illustrate the difference between duties for revenue, and duties for purposes of protection.
9. Show how a revenue tariff may afford some protection.
10. Show how a protective tariff may yield some revenue.
11. Why was a Tariff Commission created in 1916?
12. What is the general purpose of this Commission?
13. What are the duties of the Commission with respect to the customs administrative laws?
14. Why does the Commission make a study of foreign tariffs?
15. What is the third and in some respects the most important of all the duties of the Commission?
16. Give some of the steps in the survey of commodities, as conducted by the Commission.
17. Illustrate the complexity of the tariff by mentioning some of the commodities included in a tariff bill.
18. Comment upon the variety of these commodities.
19. How many of these commodities are familiar to you? How many unfamiliar?
20. Name some factors which encourage trickery in tariff legislation.
21. Why is it difficult to ascertain the difference between two tariff bills?
22. Show how the tariff act of 1909 illustrates the practice of trickery in tariff legislation.
23. What is the attitude of the Democratic party toward the tariff?
24. What is the attitude of the Republican party toward the tariff?
25. Outline the conclusions of Professor Taussig as to the relation of the tariff to national prosperity.

CHAPTER XXXI

MONEY AND BANKING

181. Origin of the national banking system[1]

Why the national banking system was created.

For a number of years prior to the outbreak of the Civil War there had been nothing in the United States which could be called a national banking system or organization. The Civil War plunged our government into serious financial straits, and chiefly to improve the finances of the Federal government there was created, in 1863, a so-called system of national banks. The original act of 1863 is still the basis of our banking system, though it has since been modified a number of times, notably in 1913. The origin of the national banking system is described in the following passage by an economic historian, Professor Ernest L. Bogart:

The outbreak of the Civil War and

When the [Civil] War broke out, the circulating medium of the country consisted of coin and of bank notes. These notes were issued by some sixteen hundred institutions, operating under State laws, and had only a local circulation at best, while some of them were nearly worthless.

the reasons for establishing the national banking system.

To replace these and [to] provide a safe national currency of uniform value was highly desirable, and was one of the causes which led to the establishment of the national banking system. More important was the necessity of finding a market for the United States bonds, whose sale formed the chief reliance of the government for carrying on the war. To secure this end it was proposed to require the banks to base their note issues upon government bonds. This plan was carried out by the act of February 25, 1863.

Some characteristics of the new system.

The characteristic point in the new system was the provision that the banks organizing under a Federal charter must buy United States bonds and deposit them with the government. They were then per-

[1] From Ernest L. Bogart, *The Economic History of the United States*. Longmans, Green & Co., New York, 1912; pp. 392–394.

mitted to issue bank notes up to ninety per cent of the par value of the bonds. Other provisions regulated the capital, the liability of stockholders, the amount of reserve, examination of accounts, etc. Owing to the slowness with which banks came into the system, the issue of notes by State banks was prevented by a tax of ten per cent annually (act of March 3, 1865). A monopoly of note issue was thus secured to the national banks. The other functions of banking were left open to banks chartered by State authority and to private banks.

The circulation of the national banks did not increase as rapidly as had been expected; in 1873, when high-water mark was reached, the outstanding circulation amounted to only $339,000,000. This failure to expand was chiefly due to the rapid rise in the price of government bonds, which made it more profitable for the banks to sell the bonds at a profit and retire their notes than to hold the bonds and keep their notes in circulation.

The circulation of the national banks.

By 1876 the circulation had been reduced to $291,000,000, and while it increased somewhat during the next few years, a steady decline set in about 1883 which continued uninterruptedly until in 1891 the bank note circulation had declined to $168,000,000. This shrinkage was brought about largely by the payment of the national debt as it fell due and the consequent retirement of the bonds on which the notes were based. An effort was made in the act of July 12, 1882, to make the conditions of note issue more profitable to the banks, but the hostility to the national banks was still so great that little was done.

During the next two decades various proposals were made to secure a larger and more elastic note issue: the repeal of the tax on circulation; funding of the outstanding United States bonds into other bonds bearing a lower rate of interest and running for a longer time; deposit of approved State or municipal bonds instead of national bonds; issuance of notes by banks on their general credit, to be secured by a general safety fund, to which all the national banks should contribute. There was, however, no further legislation upon the subject, and with the steady reduction of the debt it seemed as though the national bank note circulation would soon have to disappear.

Attempts to improve the system.

But the act of March 14, 1900, gave a new lease of life to the system: circulation might be issued to the full face value of the bonds de-

The Act of March 14, 1900.

posited; part of the existing national debt was to be refunded in new two per cent thirty-year bonds, and upon all new circulation based on these bonds the tax was reduced from one to one-half per cent per annum. At the same time that note issue was made more profitable, the minimum amount of capital was reduced from $50,000 to $25,000 in towns with a population not exceeding 3000. These inducements led to a considerable increase in the number of national banks, as well as to an increased circulation. Little was done by the act, however, to make the monetary system more elastic, while the final reform of the national banking system was simply postponed for a generation. . . .

182. Defects of the national banking system[1]

Before 1913 our banking system was highly defective.

The national banking system served a number of useful purposes, but it cannot be denied that it was highly defective until amended by the Federal Reserve Act of 1913. Prior to 1913 our banking system was a system in name only. Except for the rather loose association of the banks in the clearing houses of our principal cities, most of these banks were independent units, each working for itself. There was little teamwork. The banks were sufficiently dependent upon one another to render one sensitive to the financial condition of other institutions, but there was no adequate method by which the strong banks in the system could extend aid to banks temporarily embarrassed. This important point was developed in the 1912 report of the National Citizens' League for the Promotion of a Sound Banking System, as follows:

Before 1913, small banks customarily re-deposited a large share of their reserves in larger banks.

Under the terms of the National Banking Act, no bank is permitted to establish branches. [This was written in 1912, before the passage of the Federal Reserve Act.] Every bank is presumably an independent institution. . . . Country banks are required to hold a reserve equal to 15 per cent of their outstanding liabilities, and may re-deposit nine per cent of it with reserve city banks. They thus retain in their own vaults, at the minimum, cash equal to only six per cent of their outstanding liabilities. The reserve city banks [in

[1] From the National Citizens' League for the Promotion of a Sound Banking System, *Banking Reform*. The National Citizens' League, etc., Chicago, 1912; pp. 7–9, 12.

turn] . . . are required to hold a reserve equal to 25 per cent of their outstanding liabilities, [but] may re-deposit one-half of this . . . with banks in central reserve cities. . . .

Extent of this practice.

As a matter of fact the banks have availed themselves of this reserve provision very extensively, and much of the present so-called reserves consists not of cash in their vaults but of deposits in other banks in reserve cities. At a recent date of report to the Comptroller of the Currency, about 551 millions of dollars represented the total reserve held by country banks, while of this sum only 246 millions was actually in the possession of these banks in the form of lawful money. All the national banks of the country had reserves of 1,404 millions, of which only 862 millions was actual lawful money in hand.

Inter-dependence of the banks.

[Thus the smaller banks are profoundly interested in the condition of the banks in which they have deposited a large share of their reserves. To the latter] they look for the resources which will enable them to fill up their own reserves in time of sudden demand for payment. To them they look for accommodation through direct loans, or through the discounting of paper, or through some one of the various methods which are employed for granting relief to the smaller institutions when the stronger and larger banks are in position to afford such aid.

Conversely, the city banks look with interest to the outside institutions as the source of deposits which they expect to use in times of financial ease and slack business in the country, for the purpose of facilitating transactions in the cities and general financial operations.

Distress for one bank may mean distress for all.

[Thus the banks are intimately connected with one another, in fact, they are inter-dependent, so that the distress of one bank may affect all of the banks with which it has business relations. The difficulty is that these banks, though inter-dependent, have no way of helping one another when the distress of one threatens to work a hardship on other institutions.] The larger banks have scanty means of knowing the details of one another's affairs and no means at all of enforcing their own ideas upon one another in any case. The smaller banks, while to an extent overseen and influenced by the larger, are not in touch with one another or able to judge of the movement of credit in the operations of the other institutions. . . .

The fundamental defect in our banking system prior to 1913.

The fundamental defect of the national banking system is [that it is] a series of banks artificially grouped. Because of the lack of coöperative or fundamental relationships between the institutions, it is not possible for them to exercise any general policy with reference to the control of reserves, the fixing of rates of discount, or the granting of loans. They can only act independently of one another, and the well-conducted institutions must, therefore, suffer from the mistakes of others whose conduct tends to arouse suspicion or alarm in the mind of the public. Because of this situation, it will be seen, the national banking system as at present conducted is in a sense a breeder of panics, while it fails entirely to grant any adequate relief from these commercial convulsions. . . .

183. The panic of 1907[1]

A defect of American banking illustrated in 1907.

If we confine our attention to the defect brought out in the preceding selection, it will be seen that an important objection to our banking system prior to 1913 was this: the banks were dependent upon one another, but such dependence was unsafe because of the lack of any machinery which would enable the banks effectively to help one another in time of stress. Several notable panics have illustrated this weakness of the old national banking system. The failure of the national banking system to meet an emergency situation in the autumn of 1907 is described in the following extract from the 1907 Report of the Comptroller of the Currency:

Feverish prosperity

For at least ten or twelve years there has been an era of advancing prices and great industrial, commercial, and speculative activity in all the countries of the world. Credits have increased and multiplied until the limit has been reached in the amount of reserve money on which they must be based.

and the hint of danger.

For at least two or three years, however, it has been becoming more and more evident that there must soon be a slackening of pace if we were to avoid a general and universal crisis in financial and commercial affairs. These conditions have been world-wide and not by any means confined to the United States. Crises of more or less severity have arisen in several important countries.

[1] From the Comptroller of the Currency, *Annual Report* (1907). Washington, 1907; pp. 69–71.

Signs of trouble,

As is always the case when there is a demand for liquidation, [the trouble in the United States] first manifested itself in the stock market. For months there has been a more or less steady decline in stock-market quotations. Not only stocks, but the very best bonds, have dropped lower and lower in price. The difficulty in selling bonds has become so great that for several years many of the railways have had to raise money for their necessary expenditure and improvements with so-called short time notes, instead of regular bond issues, the rates of interest on such issues rising higher and higher and each issue being harder to place. Merchants and manufacturers of the highest standing and credit have found it more and more difficult to secure or renew loans, and the rates have risen steadily for months past.

which at first appear relatively unimportant, but which

With such conditions existing we approached the autumn crop-moving period, when there is always more or less disturbance of credit on account of currency shipments and withdrawals of balances from the reserve cities. For a time it seemed as if there were good reason to hope that there might be no more than a gradual liquidation which might be conducted in detail, one interest or line at a time, beginning with the stock market, and that while there might be a general decline in the volume of trade and the gradual liquidation of credits, it would not develop into a bank or commercial crisis.

in October, 1907, become ominous.

But during the month of October the collapse of a highly speculative corner in stocks . . . brought suspicion upon an old, well-established national bank in the city of New York. Although examinations by the national bank examiners and the New York clearing house committee showed this bank to be entirely solvent, with its large capital and a considerable surplus . . . public interest had been aroused to such an extent that runs developed in New York City on a number of other banks and trust companies and some national banks between which and the bank first under attack there was known to be community of ownership and management. The national banks of New York City were all found to be solvent by the clearing house committee, and, being supported by the clearing house banks, none failed.

The failure of a number of New York banks

But, unfortunately, a few other banks and trust companies were not in such good condition, and many of them, not being members of the clearing house or any other similar association, they were not so well prepared for coöperation and the support of each other.

The Knickerbocker Trust Company, with $1,200,000 of capital and $48,387,000 of deposits, closed its doors on October 22, and this was followed by a large number of failures among smaller banks and trust companies. During the months of October and November ten State banks and trust companies, two of which have since resumed, closed their doors in New York City and vicinity. There were long and serious runs on two large trust companies, which were only kept from failure by the support of the other trust companies and the clearing house banks. . . .

is followed by a serious bank crisis.

On October 26, the New York clearing house banks decided to issue clearing house certificates for use in the payment of balances, and to limit, if not suspend, the shipment of currency to out-of-town banks. In this the New York banks were followed by those of the other central reserve and most of the reserve cities. The result was to at once precipitate a most serious bank crisis and a famine of currency for pay rolls and other necessary cash transactions. All domestic exchanges were at once thrown into disorder and the means of remittance and collection were almost entirely suspended. Money had been withdrawn and hoarded by individuals, corporations, and even more, perhaps, by the banks themselves, all of whom at once drew and held all the money of any kind they could obtain. often really in larger sums than needed.

The panic primarily among the banks, rather than among the people.

It has been one of the peculiar features of the situation that there has actually been more of a panic among the banks themselves than there has been among the people. The banks have been fearful as to what might develop, and finding their usual reserve deposits only partially available, if available at all, they have been compelled in self-protection to gather from every source all the money they could possibly reach and to hold on to it by refusing payment wherever it is possible, and satisfying their customers with the smallest possible amount of cash. . . .

Some results.

[The panic] has interfered with every kind and class of business and has led to great curtailment of business operations of every kind. Factories have suspended, workmen have been thrown out of employment, orders have been canceled, the moving of crops has been greatly retarded and interfered with, and exports have fallen off at a time of the year when they should be at their highest. . . .

184. The Federal Reserve System [1]

As a result of the panic of 1907, the Federal Reserve Act of 1913 is passed.

Following the panic of 1907, there was widespread agitation for the reform of our banking system. Banking systems in European countries were investigated, and the defects of our national banking system were thoroughly studied. As the result of a great deal of discussion and compromise, there was enacted on December 23, 1913, the Federal Reserve Act, which amended and strengthened our national banking system. This act marked a compromise between a centralized and a decentralized system, *i.e.* it allowed our banking system to remain decentralized, but it guaranteed some of the fundamental advantages of a centralized and coördinated banking system. The general organization of this new Federal Reserve System is described by an eminent authority on banking, Professor O. M. W. Sprague, as follows:

Purpose of the Act.

The primary purpose of the Federal Reserve Act of December 23, 1913, is to make certain that there will always be an available supply of money and credit in this country with which to meet unusual banking requirements. Banks of a new class, to be known as Federal Reserve Banks, are to be established, and upon these banks is to rest the heavy responsibility of supporting the structure of credit in periods of financial strain. The new banks are expected to keep themselves in a condition of such strength in ordinary times that the other banks may safely rely upon them for all needed cash and credit in emergencies.

In the past, the banks in this country, when subjected to financial pressure, have relied mainly upon loan contraction and the selling of securities. In the future it is expected that they will resort to the Federal Reserve Banks, securing additional funds from these by rediscounting commercial loans. . . .

Duties and powers of the Federal Reserve Banks.

The Federal Reserve Banks are to exercise wide powers, and would seem likely to have ample resources. The country is to be divided into not less than eight, nor more than twelve districts, in each of which a Federal Reserve Bank is to be established. All national banks are required, and qualified state banking institutions are

[1] From O. M. W. Sprague. *The Federal Reserve Act of 1913. Quarterly Journal of Economics*, Vol. XXVIII, February, 1914; pp. 213–215, 223–224, 226–227.

invited, to subscribe to the capital of the Reserve Bank of their district.

Subscribing banks, to be known as member banks, are required to keep a part of their reserve with their Federal Reserve Bank. . . .

[The Federal Reserve Banks] will provide an elastic currency, issuing notes secured by their commercial assets. They are also empowered to undertake the business of collecting and clearing checks throughout the entire country, thus providing an organization for making settlements between banks in different places, the lack of which has been one of the most serious defects in our banking system.

Each Federal Reserve Bank a central bank.

Each Federal Reserve Bank will be a central bank for the section of the country which it is to serve. It will have all of the responsibilities and most of the powers of central banks in the various European countries. . . .

The Federal Reserve Banks are to receive deposits from the government and from member banks only. Ordinarily they will lend to member banks only. . . .

Provisions of the Act with regard to member banks.

National banks are required, and properly qualified state banks are invited, to signify their acceptance of the terms of the act. . . . Each national bank must subscribe to the capital of the Reserve Bank of its district an amount equal to six per cent of its capital and surplus. . . .

The Federal Reserve Board.

[The whole system is to be supervised and controlled by the Federal Reserve Board,] to consist of seven members; the Secretary of the Treasury and the Comptroller of the Currency *ex officio*, and five members appointed by the President. . . . Of the five appointed members, at least two must be persons experienced in banking or finance. Not more than one shall be appointed from any Federal Reserve district, and due regard is to be given to the different commercial, industrial and geographical divisions of the country. The term of office of the appointed members is ten years; but those first selected are to serve one for two, one for four years, and so on, so that the term of office of one member may expire every two years. . . .

Organization of the system will be complete with the selection of the members of the Federal Advisory Council. This Council is to

consist of as many members as there are Federal Reserve districts, the board of directors of each Federal Reserve Bank selecting one member. The function and powers of the Council are purely consultative. It is to meet regularly four times each year at Washington, and at other times there or elsewhere if deemed necessary by the Council itself. It is authorized to confer directly with the Federal Reserve Board, to call for information, and make oral or written representations concerning matters within the jurisdiction of the Federal Reserve Board. . . .

The Federal Advisory Council and its function.

185. Centralization under the Federal Reserve System[1]

The Federal Reserve System provides for the centralization and mobility of bank reserves.

At the time of the panic of 1907, the United States had the largest supply of gold of any country in the world. The difficulty was that under the old national banking system this supply of gold was ineffective, because widely scattered. A second difficulty was that our reserves were not only scattered, but were immobile. There was no effective way of quickly gathering them together and massing them at the points of financial danger. These two difficulties the Federal Reserve System overcomes by provision for, first, the centralization of bank reserves, and, second, the mobility of those reserves. The following discussion of this subject is by an American economist, Professor Edwin Walter Kemmerer:

Member banks must maintain their entire legal reserve in the Federal Reserve Bank of their district

[At the present time] every bank, banking association or trust company belonging to the Federal Reserve System [must] maintain its entire legal reserve in the form of a deposit at the Federal Reserve Bank of its district. . . . [Thus commercial banks belonging to the system no longer tie] up their legal reserve money by depositing it in the banks of our money market centers, there to be loaned out at call to speculators on the stock and produce exchanges. This divorcing of the legal reserves of nearly 8,000 commercial banks from the speculative and capital loans of the stock market . . . is one of the big achievements of the Federal Reserve System. The Federal Reserve law, as amended, recognizes only one form of legal reserve, and that is a member bank's deposit in its Federal Reserve Bank.

Member banks may keep as much or as little cash on hand for

[1] From Edwin Walter Kemmerer, *The A B C of the Federal Reserve System*. Princeton University Press, Princeton, N. J., 1920; pp. 36–42, 48–49.

This secures the district centralization of reserves.

till money as they wish to. They may keep balances in other banks if it suits their convenience to do so — all that is their own affair for which their responsibility is to their stockholders and their customers — but their legal reserve, the reserve which the Government looks upon as the minimum below which the public interest demands that banks should not go, that reserve must all be kept on deposit, in Federal Reserve Banks, the nation's reservoirs of reserve money. . . .

Mobility of reserves

A corollary to the district centralization of reserves is their mobilization. Reserve money must not only be piped into a few large reservoirs, but these large reservoirs must be piped together, and there must be a pumping engine of sufficient power to force the reserves promptly and in large quantities to any place desired. The Federal Reserve System creates just this machinery. [It provides for the mobility of reserves, first, between the different districts of the system, and second, between the different member banks of any one district. Mobility of reserves between different Federal Reserve districts is provided for in a number of ways, notably as follows:]

between different Federal Reserve districts,

In case there is an exceptionally heavy demand for reserve money in any section of the country — a demand heavier than the banks of that section can reasonably meet — the reserve banks in other sections where money is more plentiful will come to the rescue, either voluntarily or under compulsion [by the Federal Reserve Board], and will rediscount the paper of the reserve bank in the section under financial stress. This process, of course, will cause a flow of cash from the reserves of the former banks to the reserve of the latter, thereby easing the money market in the threatened section. . . . [Thus] the reserves of the twelve reserve banks are so closely piped together . . . that they may reasonably be considered to be closely connected tanks of a single large reservoir. . . .

and between the member banks of any one Federal Reserve district.

[There is also provision for the mobility of reserves between the banks of a single Federal Reserve district.] The forces which act for the increasing mobility of reserve money within the boundaries of a Federal Reserve district are essentially the same as those just explained for that between districts. Obviously [commercial] paper of wide acceptability flows from place to place within a district more freely than paper whose merits are less widely recognized; and,

within a district as between districts, the widely marketable paper flows from the places where the discount rates are high and bank funds scarce, to the places where the rates are low and funds are more plentiful. Furthermore, the bank reserves of the district which have been piped to the one reservoir, namely, the Federal Reserve Bank, can be readily pumped to the banks of any section where funds are in heavy demand.

If banks throughout the district were rediscounting in moderate sums with the Federal Reserve Bank, and if a sudden emergency should cause an exceptionally heavy demand for funds in any section, the Federal Reserve Bank could raise its rate of discount, thereby reducing the rediscount demands of the banks less urgently in need of the funds, and could then turn larger amounts into the section where the demand was heaviest. . . .

186. Elasticity under the Federal Reserve System[1]

In addition to the centralization and mobility of reserves, there is elasticity of money and credit.

In addition to providing for the centralization and mobility of bank reserves, the Federal Reserve Act secures a considerable degree of elasticity. Elasticity means, for one thing, that the amount of money or credit will increase when a great deal of business is being transacted, and will decrease when business becomes slack. We have seen that under the Federal Reserve System, the reserves of the several districts can be centralized and piped to banks where they are needed; it remains to be pointed out that there must be provision for enlarging the amount of money or credit when the mechanism of exchange is called upon to handle a great volume of business, and that when business has subsided there must be some way of reducing the amount of money and credit in circulation. Elasticity under the Federal Reserve System is explained by Professor Kemmerer as follows:

Elasticity of bank-note currency:

[First, the elasticity of the bank-note currency is secured by the so-called Federal Reserve notes. These notes, which are obligations of the United States Government, and [are issued by the] Federal Reserve Banks, have back of them specifically pledged with the Federal Reserve agent to the amount of 100 per cent certain forms of high-grade collateral. . . . Except under special circumstances,

[1] From Edwin Walter Kemmerer, *The A B C of the Federal Reserve System.* Princeton University Press, Princeton, N. J., 1920; pp. 50–53, 55–56, 61, 64–65.

. . . a gold reserve of not less than 40 per cent must be kept by each Federal Reserve Bank against its outstanding Federal Reserve notes. . . .

how it may be expanded

As regards the matter of elasticity, these notes have in a high degree the quality of expansibility, namely, of having their circulation easily increased in times of need. If member banks in a given section of the country need an increased supply of currency to meet local demands, they may rediscount eligible paper with their Federal Reserve Bank and take the proceeds of the rediscounts in Federal Reserve notes, which pass readily as hand-to-hand money and are satisfactory till money for the banks. The Federal Reserve Bank, if its supply of notes is inadequate, secures, on application to the federal reserve agent, additional notes by depositing with the agent the rediscounted paper or other eligible paper in its portfolio. This process may continue as long as the Federal Reserve Bank has paper available for deposit with the Federal Reserve agent and its gold reserve does not fall below the normal legal minimum of 40 per cent. In case of great emergency, however, the Federal Reserve Board may permit a reduction of the note reserve below 40 per cent, provided it imposes a graduated tax upon the amount of the deficiency. . . .

and contracted.

For the purpose of contracting the circulation of Federal Reserve notes when the business demands for currency decline, the machinery is as follows. When the demand for notes in the pockets of the people and the tills of the merchants falls off, as it does, say, after the harvesting season in the autumn, the surplus notes are deposited by the public in the banks. Inasmuch as national banks cannot count these notes in their vaults as legal reserve money, they will tend to send to their Federal Reserve Banks for deposit any notes they receive in excess of the amount needed for till money. Notes which were issued by the Federal Reserve Bank of the district may thus be withdrawn from circulation. . . . Another device calculated to encourage the retirement from circulation of bank notes whenever they become redundant is the provision of the law authorizing the Federal Reserve Board to charge such a rate of interest as it may deem desirable on Federal Reserve notes uncovered by gold or gold certificates issued to Federal Reserve Banks. . . .

The most important device of the Federal Reserve System for secur-

ing elasticity of deposit currency, as well as of bank-note currency, is found in the machinery enabling member banks to borrow funds of their Federal Reserve Bank. Funds so borrowed, when left on deposit with the Federal Reserve Bank, serve as legal reserve money for the member banks. The making of such loans to member banks is one of the chief functions of Federal Reserve Banks. [Member banks may secure these loans either by rediscounting eligible paper at the Federal Reserve Bank of their district, or by borrowing from the Federal Reserve Bank on the security of certain types of collateral.] . . .

Elasticity of deposit credit: how it may be expanded

The contraction of deposit currency, as soon as the need for it falls off, is brought about by the pressure of high discount rates, to which the pressure of the graduated tax is added. This double pressure encourages borrowers to pay off their loans. This fact, and the increasing restrictions which Federal Reserve Banks place upon rediscounts as money market conditions become easier, tend to contract the circulation of deposit currency and restore the reserves to a normal condition. . . .

and contracted.

Some critics of the Federal Reserve System believe that the machinery it provides for contracting both deposit and bank-note currency, in times of currency redundancy, needs strengthening. [However this may be], there is no question but that the Federal Reserve System has added greatly to the elasticity of both our deposit currency and our bank-note currency.

A criticism.

Questions on the foregoing Readings

1. Why was the national banking system created?
2. Name some characteristics of the new system.
3. Discuss the attempts to improve the system.
4. What was the effect upon the national banking system of the Act of March 14, 1900?
5. Explain what is meant by the statement that before 1913 "our banking system was a system in name only."
6. To what extent did the smaller banks formerly deposit a large share of their reserves with larger banks?
7. Explain how this created a feeling of interdependence among the banks.
8. Name a panic which clearly illustrated the defects of the national banking system as it existed prior to 1913.
9. Discuss the first signs of the impending panic.

10. What part was played by stock speculation in bringing on this panic?
11. Discuss the difficulties which confronted the State banks and trust companies in the earlier part of the panic.
12. What action of the New York clearing house banks precipitated the panic?
13. What is meant by saying that the panic was primarily among the banks and not among the people?
14. What was the purpose of the Federal Reserve Act of 1913?
15. What, in brief, are the duties and powers of the Federal Reserve Banks?
16. Explain the organization of the Federal Reserve Board.
17. What is the function of the Federal Advisory Council?
18. Why must member banks keep all of their legal reserve in the Federal Reserve Bank of their district?
19. May they keep any reserves in other banks? Explain.
20. Explain what is meant by the district centralization of reserves.
21. Show how the Act of 1913 provides for the mobility of bank reserves between (*a*) different districts, and (*b*) between the different banks of a single district.
22. What is meant by elasticity of money and credit?
23. Show how the bank-note currency may be (*a*) expanded and (*b*) contracted under the Act of 1913.
24. How may deposit credit or deposit currency be expanded and contracted under the Act?
25. What criticism has been brought against the Federal Reserve System with respect to the contraction of deposit and bank-note currency?

CHAPTER XXXII

TAXATION

187. Defects of American taxation[1]

Increasing discontent with our taxation system.

There can be no doubt but that discontent with our taxation system is steadily increasing. Not only is the increasing cost of government demanding greater and greater revenues, but the failure to change our taxation policies to keep pace with the growing complexity of our industrial life renders more and more inadequate our traditional methods of taxation. In brief, more is demanded of our taxation system than ever before, but that system is unable to respond effectively. American taxation systems are highly defective, as Professor Edwin R. A. Seligman points out in the following selection:

The eight defects of American taxation:

What, then, are the chief difficulties in our tax system which are coming more and more to be recognized everywhere throughout the length and breadth of the land? I should sum them up under eight heads.

(1) the breakdown of the general property tax,

First and foremost is the breakdown of the general property tax, which is almost everywhere still the chief reliance of state and local government. The general property tax works well only amidst most primitive conditions, for which alone it was calculated. . . . The administration of the general property tax is everywhere attended with increasing difficulty, and in our large industrial centers it has become, to use the words of a recent tax report, "a howling farce."

(2) inequality in tax burdens,

Second, a growing lack of equality in tax burdens, not only as between classes in the community, but as between individuals of the same class. . . .

Third, the application to general purposes of what was intended to be only a local revenue. All direct taxation was originally local

[1] From Edwin R. A. Seligman, *The Separation of State and Local Revenues*. State and Local Taxation, First National Conference, November 12–15, 1907. *Addresses and Proceedings*. The Macmillan Company, New York, 1908; pp. 486–489.

(3) inadequacy of local assessment,

in character and the assessment of property for local taxation was at the outset a comparatively simple matter. When the need for state revenues made itself felt, it was obviously expedient to tack on to this local taxation a quota for general purposes. But with the great development of state functions, and with the breakdown of the local barriers of commerce and industry, what was originally equal soon turned into inequality, and the attempt to fetter interlocal or even interstate business conditions by the bonds of purely local assessment has proved to be a fruitful source of difficulty.

(4) lack of proper corporation taxes,

Fourth, the failure to make modern corporations bear their fair share of taxation. . . .

(5) the franchise evil,

Fifth, the failure to secure adequate compensation from individuals and corporations alike for the franchises and privileges that are granted by the community. An earnest effort is being made at present throughout the length and breadth of the land to repair this defect. . . .

(6) undue burden on the farmer,

Sixth, the undue burden cast upon the farmer. Practically, this is the problem of taxation in many of our rural districts and in all agricultural communities where the failure of an adequate revenue system and of the readjustment of social resources makes it impossible to secure good schools or fairly decent roads without overburdening what is, after all, the chief source of American prosperity.

(7) interference with business,

Seventh, the interference with business, due to the partial and spasmodic enforcement of antiquated laws. Witness the attempt in some states suddenly to levy the mortgage tax, as recently in New York, where the entire building industry was thrown into confusion; or the attempt in other states to enforce . . . property [taxes] on businesses which led to a change in the location of the business rather than to any increase of revenue. . .

and (8) inadequate taxes on great wealth.

Eighth, the failure to make great wealth contribute its due share. In former times, where property was fairly equally distributed and conditions simple, inequalities in tax burdens were slight and unperceived. Before the huge aggregations of modern wealth, the crude tax machinery of earlier days stands impotent. And yet we hug ourselves with the delusion that all that is necessary is to patch up the old machinery, whereas what is really needed is to throw the old machinery on the scrap heap, and to utilize entirely new and modern instruments and processes.

188. Breakdown of the general property tax[1]

Failure of the general property tax.

As Professor Seligman has pointed out in the above selection, the breakdown of the general property tax is first and foremost among the defects of American taxation. Wherever extended investigations of this tax have been made, the conclusion has always been that it is thoroughly inadequate as a source of revenue, and that it is unqualifiedly evil in its effects upon both assessors and taxpayers. Some of the defects of the general property tax are brought out in the following extract from a committee report to the Fourth International Conference on State and Local Taxation, held in Milwaukee, in 1910:

Two reasons for the failure of the general property tax:

There are two reasons why the general property tax has failed in operation. First, because under modern conditions it cannot be enforced effectively. Secondly, because of a more or less conscious recognition of the fact that strict enforcement would result in a still greater injustice than now prevails.

(1) the impracticability of enforcement,

[First, as to impracticability of enforcement]:

Under modern conditions, much property that is valuable to its individual owner . . . is in a form that permits of easy evasion. The paper evidences of ownership of property which the general property tax system seeks to reach in the hands of the owner, can readily be concealed, or there can be a colorable transfer of title. Credits and debts can be juggled. Visible personal property can be temporarily transferred into another district or state. Where the taxpayer makes his own return, he can undervalue or omit some of his property. If the assessor tries to inventory the property he may overlook much of it and fail to estimate the value of that which he does find. . . .

and (2) the injustice of strict enforcement.

[Second, as to the injustice of strict enforcement]:

Public opinion almost invariably recognizes the unfairness of taxing all property by the same rule and at the same rate, whenever a strict enforcement of the law is attempted. The abstract demand for the taxation of all property alike then gives place to concrete

[1] From State and Local Taxation, Fourth International Conference, August 30 to September 2, 1910. *Addresses and Proceedings*. International Tax Association, Columbus, Ohio, 1911; pp. 307–310.

indignation over the actual results. It is always some unknown "they" who ought to be made to pay on everything "they" own.

But the property which the assessor does find, often is, in the opinion of its owners, either greatly overvalued, or has been "singled out," or is otherwise quite improperly on the rolls. This attitude of the average property owner is an unconscious resentment at the unfairness of the general property tax theory. The attempt to tax all property at a uniform standard of valuation and at the same rate, regardless of its special characteristics, earning power, or the benefits derived from the expenditures of government, violates the primary rules of just taxation and offends the natural sense of justice. . . .

Conclusions.

To sum up, your Committee finds:

That the general property tax system has broken down;

That it has not been more successful under strict administration than where the administration is lax;

That in the states where its administration has been the most stringent, the tendency of public opinion and legislation is not toward still more stringent administration, but toward a modification of the system;

That the same tendency is evident in the states where the administration has been more lax;

That the states which have modified or abandoned the general property tax show no intention of returning to it;

That in the states where the general property tax is required by constitutional provisions, there is a growing demand for the repeal of such provisions.

We conclude, therefore, that the failure of the general property tax is due to the inherent defects of the theory;

That even measurably fair and effective administration is unattainable; and that all attempts to strengthen such administration serve simply to accentuate and to prolong the inequalities and unjust operation of the system.

189. The separation of state and local revenues [1]

What is implied by the separation of state and local revenues.

The breakdown of the general property tax has given rise to a number of proposals for the reform of our taxation system. One of these is the proposal to separate state and local revenues. The phrase "separation of state and local revenues" requires a word of explanation. In a great many places in the United States the general property of individuals is assessed for local purposes by local assessors. The *local* tax rate is secured in this manner. The total amount of money needed to defray the expenses of the county is apportioned to the various localities within the county, according to the assessed valuation of property in those localities. This means that a *county* tax rate is added to the *local* rate. Finally, the amount required for state expenses is apportioned to the several counties, according to the assessed valuation of property within each county. This gives the *state* tax rate. The *final* tax rate upon property is made up of the addition of these various rates. The separation of state and local revenues means that practically there should be no state tax rate on general property added to the local tax rate through the process of apportioning state expenditures among the localities according to the assessed valuation. It implies, also, that some other method of securing the state revenues be devised. The advantage of separating state and local revenues are advanced by Professor Edwin R. A. Seligman in the following selection:

Advantages of the separation of state and local revenues:

(1) It would allow the effective taxation of businesses which have become interlocal or

The first advantage is the conformity with the natural division of government functions and activities. The relation of government to business life necessarily changes with the conditions of business activity. When business was purely local in character, as was true in former times, the local authorities were competent to deal with them. . . . [But to-day] many of the ordinary corporations and, businesses are stretching out with an activity that transcends all local bounds . . . and in the great majority of cases any attempt to estimate the economic capacity of the business or corporation to bear the tax burdens by the property existing in that locality would be woefully inaccurate. . . . The insurance company does business

[1] From Edwin R. A. Seligman, *The Separation of State and Local Revenues*. State and Local Taxation, First National Conference, November 12–15, 1907. *Addresses and Proceedings*. The Macmillan Co., New York, 1908; pp. 491–495.

state in character

throughout the entire State; the railroad may have four tracks in a little country village which contributes practically nothing to the traffic; a bank may derive its profits in large measure from out-of-town business. Where the activity is primarily interlocal or state the burden should be interlocal or state.

(2) it would secure greater equality in assessments;

The second advantage is the securing of greater equality in assessments. The differences in assessed valuations in various sections of our State have everywhere become so glaring that the last few decades have seen in almost every case the creation of boards of equalization designed to remedy the acknowledged evil. It is equally notorious, however, that the remedy has been entirely inadequate. . . . The inequalities go on almost unchecked, very largely for the reason that the members of the state boards have too imperfect a knowledge of the local conditions to admit of any successful revision of property valuations. The relegation of the general property tax to the localities will at once render unnecessary any equalization, for if the state revenues are secured in other ways (and if the general property of individuals, whether real estate or personalty, is not directly liable for state purposes), there will of course be no inducement for the local authorities to seek to lower the local valuations of property. . . . The individual landowner in one part of the State will no longer be casting envious glances at the landowners in other parts of the State, and this mad scramble for the reduction of assessments will be checked. . . .

(3) it would reduce conflicts between city and county; and

[Another] advantage is the removal of conflicts between city and county. The present situation in many of our states is really an outgrowth of . . . the inequality in the assessments of property. Many of the rural counties claim that since there is a far larger proportion of tangible and visible property within their borders than is the case in the larger cities, the property actually assessed in their case greatly transcends in its relative proportions the property assessed in the cities. There is, therefore, a frequent pressure upon boards of equalization to raise the total valuations in the cities and to compensate for this by reducing the valuations of the rural districts. . . . The separation of state and local revenues puts, with one blow, an end to all these sources of difficulty and friction. The large city, as well as the small town, each is allowed to go its way in peace.

(4) it would render the tax system more flexible and adaptable.

The final advantage is virtually a corollary of the one just discussed: namely, a greater flexibility and adaptation of means to end. If each locality is . . . divorced from the others and is left to work out its fiscal salvation, to a certain extent at least, independently, it is obvious that each locality will be better able to adjust its fiscal system to its own particular fiscal needs. The conditions of a commercial metropolis are very different from those of a country hamlet, and what may be entirely appropriate in the second case may be found to be completely unworkable in the first. The slow steed and the fleet pacer work very ill together in harness: set each of them free to do what he can and the total result will be far more satisfactory for all concerned. Uniformity of fiscal methods is desirable only where there is a uniformity of economic conditions. . . .

Conclusion.

Thus from each of these . . . points of view the benefits which would accrue from a separation of state and local revenues are clear and undeniable. But so strong is the force of custom and prejudice, and so inadequate is the ordinary analysis made of the situation, that the movement has really only just begun in the United States. . . .

190. Constitutional limitations on taxation[1]

An essential step in tax reform.

In drawing up plans for such taxation reforms as the separation of state and local revenues, it is important to bear in mind that in many of our States these changes could not be effected without radical amendments to the state constitution. For this reason tax commissions appointed to recommend changes in taxation have often voiced the conclusion that an essential step in tax reform must take the direction of modifying the existing constitutional provisions. In the following selection Professor Isidor Loeb discusses the effects upon tax problems of the limitations contained in the constitutions of some of our States:

The demand for constitutional curbs upon the financial powers

[During the railroad-building period of American history,] state and local aid was granted to an extensive degree and under a variety of forms. While in some cases the public interests were safeguarded, a combination of fraud, extravagance and financial depression left

[1] From Isidor Loeb, *Constitutional Limitations Affecting Taxation.* State and Local Taxation, First National Conference, November 12–15, 1907. *Addresses and Proceedings.* The Macmillan Co., 1908; pp. 77–80

of the state government

many communities facing large debts and heavy tax rates. . . . As a result the demand arose for constitutional limitations which would prevent the state and local governments from aiding or engaging in economic enterprises. The restrictions which were adopted to meet this demand would prevent a recurrence of the evil, but they were not sufficient to satisfy the people, who insisted that their officials and representatives should be deprived of the power of incurring debts or imposing high rates of taxation for any purpose. Connected with this was the demand for the prohibition of all privileges and exemptions in taxation such as had been granted to railroad and other corporations.

and the result.

As a result the constitutional limitations in many States were extended so as to apply to the subjects and rates of taxation, to exemptions and to public indebtedness. The new States which had not passed through a financial experience of this character followed the practice of the older States when they framed their constitutions. . . .

Failure of the attempt to make everyone bear his just share of the tax burden.

The constitutional provisions which apply to the subjects of taxation were due for the most part to the desire to prevent any one from escaping his just share of the burden of taxation. The people wished to establish equality and uniformity in this respect, and, lacking an intelligent appreciation of the principles of taxation, it was natural that they should conclude that this could be best secured by subjecting all objects of property to the tax. . . . But their adequate enforcement was impossible in the absence of an efficient administration. With the ineffective machinery provided under our local government system, the actual conditions of taxation became just the opposite of those intended. . . .

Tax reforms which have been retarded by constitutional limitations.

While the constitutional limitations have thus failed to secure the end desired, they nevertheless remain as serious obstacles to tax reform. Separation of the sources of state and local revenue, local option in taxation, and, in many States, equitable corporation taxes, became impossible because of such provisions. The courts have indicated by their decisions that relief cannot be expected from that quarter. Indeed, in some cases they have increased the difficulties of the situation. Thus, for example, a court which upheld an inheritance tax on the ground that it was not a tax on property, nevertheless

strongly intimated that any exemption based upon the value of the inheritance would be in conflict with the constitutional prohibition upon exemptions of property from taxation. . . .

A fallacy.

In some States the people were so alarmed at the excessive rates necessary to meet the obligations which had been incurred that they secured the adoption of constitutional provisions prohibiting the levy of a rate beyond a certain amount which was fixed in the constitution. Undoubtedly some limitation upon the rate of taxation was necessary, but the methods adopted were, in many cases, arbitrary and irrational. A good illustration is afforded by the provision for reducing the maximum rate when the total assessed valuation exceeded a certain figure. This was based upon the fallacy that the expenses of the State would not grow as rapidly as its taxable wealth. . . .

The inconvenience and hardship resulting from these constitutional limitations

The fact that these and other constitutional limitations are producing inconvenience and hardship in the several States is clearly shown by numerous efforts to secure their modification. Independent of the character of the restrictions, the fact that the constitution embraces detailed provisions would of itself necessitate frequent amendment. As these provisions are not of a fundamental character they partake of the nature of legislative acts. As such, while they may be suited to the conditions under which they were enacted, changes in wealth, population, and social and economic conditions in general, will necessitate modification from time to time as in the case of statutory revision.

has stimulated the movement toward constitutional amendment.

Some idea of the extent of this movement can be gathered from the statistics of the proposed amendments to constitutions which have been submitted to the voters for their ratification or rejection. A table prepared by Professor John B. Phillips shows that in the eight years from 1895 to 1902 inclusive, two hundred and eighty-one separate constitutional amendments were voted upon by the people. Of these, one hundred and sixty-eight were adopted. Large as these figures are, they are exceeded by those of subsequent years, which prove that the movement is increasing rather than diminishing. . . .

191. Need of thorough study of the tax problem[1]

The realization of the defects of American taxation has been followed by piecemeal reform.

A study of American taxation reveals two widespread tendencies: In the first place, there is an increasing tendency for tax experts and tax officials everywhere to admit that American taxation is highly defective. In the second place, there is a more or less definite tendency to attack the tax problem by advocating specific reforms. Many states have, in this way, solved important phases of the tax problem, and yet the conviction is growing that the tax problem is so complicated and so fundamental that it cannot properly be solved without a wholesale reorganization of the tax system. The necessity of approaching this reorganization through a state-wide survey of the whole field of taxation is set forth in the following address by Mr. John A. Lapp before the 1914 conference on taxation in Indiana:

But the problem of taxation cannot be settled by piecemeal.

One thing is evident, that is, that we cannot settle this problem by piecemeal. It must be taken in its complete aspects. It must be solved as a unit in order that the system shall be comprehensive and at the same time honest and fair. If we want to get that sort of a system, we cannot depend upon individual initiative, either of private citizens or of public officials. Nor can we depend upon the unaided efforts of the General Assembly. Each man, whether he be a private citizen or an office holder, has many more problems to consider and can give only a minimum of time to the thought and effort which are necessary to work out the matter to its final analysis.

Need of a thorough investigation of the subject.

We must depend, therefore, upon some organization, or somebody working exclusively and efficiently to the end of collecting, analyzing, and setting forth the main facts which must underlie the solution of this problem. The work requires long study. It requires expert assistance. It requires the opinions of men in every walk of life, and it requires that all the facts shall be gathered together and set forth in such manner that out of the facts may come a logical and complete system of taxation. . . . We shall need a special investigation representing all classes of people who are concerned with this problem, who shall be appointed for reasons of knowledge, experience

[1] From Indiana University, Extension Division, *Proceedings of a Conference on Taxation in Indiana*, February 5 and 6, 1914. Bloomington, Indiana, 1914; pp. 163–165.

and interest in working out from the accumulated experience of this and other states an adequate and fair system of taxation for the State of Indiana.

Importance of this.

Such an investigation must be thorough, or else it might better not be had. A partial solution of the problem is not what we are after. Nothing short of a full survey and a practical and complete working plan of taxation will satisfy the state permanently. . . . We do not want to substitute some different system of taxation just merely because it is different. We want, rather, to comprehend and solve the whole problem, but, most of all, we want to make the people of the state comprehend it. The best system cannot be adopted, nor will it work, unless the people have been educated to its purposes, and are willing to educate themselves to its administration.

Groups which ought to be represented on a tax commission.

This investigation must be fairly representative of men of all the classes that are interested. Such a commission, I should think, should be composed of a representative of the tax-paying class. . . . We ought to have a representative from the business interests of the state, and a representative of agriculture, and above all we ought to have a representative from the State Tax Board itself, which is charged with the duty of administering the law, and is familiar with all the details and defects in the actual administration of the law of the state. We also need men who will look at the thing from a large standpoint, men who will look at it from the standpoint of the professor of political economy, if you will. . . .

The results of the investigation must not be concealed,

Such a body as that — and I just merely suggest an outline — could investigate the subject for Indiana. . . . I have seen a great many investigations in this state and other states which surveyed the facts in certain fields. After the facts were gotten they were quietly concealed in ponderous volumes or in the offices of the Capitol, or in some other place. The people did not get hold of the facts. They did not have a chance to study them. . . .

but must reach the people.

[This is the wrong way to do things.] We must take everybody into our confidence. We must try to educate everybody on this subject; and when we have done that . . . I dare say we will come to the conclusion . . . that we ought to have a comprehensive change in the tax system in Indiana; that no matter how good the system of taxation may have been a few years ago, it is not adequate at the

present time, and it is not adequate for the rapidly changing future. . . .

192. Some principles of taxation [1]

Importance of a firm grasp of the fundamental principles of taxation;

In the study of taxation, nothing is more important than a firm grasp of the basic principles which underlie a sound taxation system. The development of new objectives in taxation, and the increase in the number of factors involved in the problem, have not been without their effect upon taxation ideals. Nevertheless, there are certain basic principles which are still vital, and which under any system of taxation ought seriously to be taken into account. No one has more aptly expressed these principles than Adam Smith, writing a century and a half ago, as follows:

The four principles of taxation:

Before I enter upon the examination of particular taxes, it is necessary to premise the four following maxims with regard to taxes in general.

(1) the payment of taxes according to ability;

1. The subjects of every state ought to contribute toward the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state. The expense of government to the individuals of a great nation is like the expense of management of the joint tenants of a great estate, who are all obliged to contribute in proportion to their respective interests in the estate. . . .

(2) a tax ought to be certain and not arbitrary;

2. The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor and to every other person. . . .

(3) a tax ought to be levied so as to suit the convenience of the contributor;

3. Every tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it. A tax upon the rent of land or of houses, payable at the same term at which such rents are usually paid, is levied at the time when it is most likely to be convenient for the contributor to pay; or, when he is most likely to have wherewithal to pay. Taxes upon such consumable goods as are articles of luxury, are all finally paid

[1] From Adam Smith, *An inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. Book v, Chapter II, Part II.

by the consumer, and generally in a manner that is very convenient for him. He pays them by little and little, as he has occasion to buy the goods. As he is at liberty too, either to buy, or not to buy, as he pleases, it must be his own fault if he ever suffers any considerable inconveniency from such taxes.

(4) a tax should take from the people as little as possible over and above what it brings into the public treasury.

4. Every tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury. . . . A tax may either take out or keep out of the pockets of the people a great deal more than it brings into the public treasury. . . . First, the levying of it may require a great number of officers, whose salaries may eat up the greater part of the produce of the tax, and whose perquisites may impose another additional burden upon the people. Secondly, it may obstruct the industry of the people, and discourage them from applying to certain branches of business which might give maintenance and employment to great multitudes. While it obliges the people to pay, it may thus diminish, or perhaps destroy, some of the funds which might enable them more easily to do so. . . .

Questions on the foregoing Readings

1. How do you account for the increasing discontent with our taxation system?
2. What is meant by the "breakdown of the general property tax"?
3. To what extent is local assessment inadequate?
4. How may taxes unduly interfere with business?
5. What is one reason for the failure of the general property tax?
6. What is a second reason for the failure of the general property tax?
7. Why is it impracticable to enforce the general property tax?
8. Why is strict enforcement of the general property tax unjust?
9. Summarize the case against the general property tax.
10. What is implied by the term "separation of state and local revenues"?
11. What does Professor Seligman mean by saying that the first advantage of such separation is "the conformity with the natural division of government functions and activities"?
12. How would such separation tend to secure greater equality in assessments?
13. To what extent would such separation reduce the conflicts between city and county?
14. What is meant by the statement that the separation of state and local revenues would "render the tax system more flexible and adaptable"?

15. Discuss the origin of the demand in state government for restrictions upon the financial powers of the state government.
16. What was the result of this demand?
17. Name some tax reforms which have been retarded by constitutional limitations.
18. Describe the movement to remove the constitutional limitations affecting taxation.
19. What two widespread tendencies are revealed by a study of American taxation?
20. Comment upon the statement that the tax problem cannot be settled by piecemeal.
21. What is the necessity of a thorough investigation of the tax problem?
22. Name some groups or classes which ought to be represented in this investigation?
23. What should be done with the results of such an investigation?
24. What is the importance of a firm grasp of the principles of taxation?
25. What four maxims or principles of taxation are mentioned by Adam Smith?

CHAPTER XXXIII

INDUSTRIAL RELATIONS

193. Rise of the labor organization [1]

Origin of the labor organization.

The risks and limitations which the factory system imposes upon the laboring classes have encouraged workmen to organize for the purpose of promoting their mutual interests. The individual gains, it has been found, when his interests are supported by a group of workmen acting as a unit, and bringing their united pressure to bear upon the employer. The labor organization has been the result of this discovery. A labor organization may be defined as a more or less permanent and continuous association of wage-earners, entered into for the purpose of improving the conditions of their employment. The first labor organizations in the United States were formed early in the nineteenth century, but not until after the Civil War did the national labor organization become important. The following extract from the *Final Report* of the United States Industrial Commission describes the two most important attempts to unite the nation's workers in a single labor organization:

The rise of a distinct wage-earning class and

As an association of wage-earners, the trade union began to be possible only when a distinct wage-earning class arose. So long as handworkers were in large part men who wrought their own materials or the materials of their customers with their own tools, no wage-earning class, such as we know, existed. . . .

the formation of the Knights of Labor.

Two important attempts have been made in the United States to go beyond the national organization of a trade or an industry, and to bring all the wage-earners of the country under a single jurisdiction. The first was that of the Knights of Labor. This organization was formed in 1869. It maintained a relatively quiet existence, growing steadily but moderately, until about 1885. At that time events

[1] From the United States Industrial Commission, *Final Report*. Washington, 1902. Vol. XIX, pp. 793, 798–799, 806.

brought it very prominently before the public eye, and its membership rose in a year's time from about one hundred thousand to six or seven hundred thousand. It was disastrously defeated in some contests with employers, and sank into comparative obscurity almost as rapidly as it had risen.

Internal organization of the Knights of Labor.

The fundamental idea of the Knights of Labor is the unity of all workers. Its characteristic motto is, "An injury to one is the concern of all." It regards this unity of interest as necessitating unity of policy and of control; it conceives that unity of control can be effected only by concentrating all responsibility and power in the hands of the men who may be chosen to stand at the head of affairs, The control of the organization rests wholly in the general assembly, and except when the general assembly is in session the orders of the executive officers, elected by the general assembly, are required to be obeyed by all members. While the several trades are separately organized within the order, so far as this is practicable, every such separate trade organization is subject to the control of the general officers. . . .

The American Federation of Labor, and wherein it differs from the Knights of Labor.

The second great effort to unite the wage-earners in a single organization is that of the American Federation of Labor. The Federation differs from the Knights of Labor in that it tries to make itself distinctly an organization of wage-earners, while the Knights of Labor desired to include all productive workers, whether or not they received their compensation in the form of wages. More important, perhaps, it differs also in its form of organization, and in the ideas of policy which lie at the basis of the form of organization. The Knights of Labor may be compared to the "republic, one and indivisible," which was the ideal of the revolutionary statesmen of France. The Federation is based on that principle of alliance, and union for certain purposes, of independent minor republics, upon which the union of the American States proceeded.

Each trade is independently organized, not, it is conceived, by virtue of any authority emanating from the head of the whole, but by its own independent power. Each trade organization retains its sovereign control of its internal affairs, and only joins with the others in a federal organization for the consideration of common interests and the promotion of the common good.

Strength of the American Federation of Labor.

The American Federation of Labor now includes an overwhelming majority of the organized workers of America. The strongest of the railroad brotherhoods — the engineers, the firemen, the conductors, and the trainmen — remain outside of it, and so do a few other important organizations. With the exception, however, of the four great railroad brotherhoods referred to, it is improbable that the majority of the members of labor organizations outside the Federation are in the local unions which have no direct affiliation with any other body, excepting, perhaps, the central unions or trades assemblies of their cities. . . .

Methods of the trade union.

[If now we confine our attention to the individual trade union, it is to be noted that] the union has two general methods of bettering the economic condition of its members. It may try to strengthen the strategic position of the individual workman in dealing with the employer, or it may take the function of bargaining altogether out of the hands of the individual. The former policy involves an attempt to diminish the number of competitors in the trade. The latter . . . involves the placing of the interests of all the workers under a single control, so that the whole amount of labor power available in the trade may be handled in the market as a unit. . . .

194. The extent of strikes and lockouts [1]

The persistence of industrial disagreements.

In any survey of the actual workings of modern industry, the most casual observer must be impressed by the persistence of disagreements between labor and capital. These disagreements take different forms, and are of varying duration and significance. Two of the most serious types of industrial disturbances are strikes and lockouts. Complete data on these industrial phenomena are lacking, but for a number of years the United States Department of Labor has kept a record of strikes and lockouts in this country. The following extract from a report of the Department indicates the extent of strikes and lockouts in the years 1916, 1917, 1918, and 1919:

[1] From the United States Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*. Washington, June, 1920; pp. 200–204.

Strikes and lockouts, 1916–1919.

TABLE I. NUMBER OF STRIKES AND LOCKOUTS, 1916, 1917, 1918, AND 1919

Year	Total	Year	Total
Strikes:		Lockouts:	
1916	3,681	1916	108
1917	4,324	1917	126
1918	3,232	1918	105
1919	3,253	1919	121

Number of persons involved in labor disputes in the years 1916, 1917, 1918,

Although the number of strikes during 1919 was not appreciably larger than in 1918 and was less than in 1916 or 1917, the number of persons on strike during the year 1919 was greatly in excess of the number on strike in any of the three preceding years, due to the number of strikes in which large numbers of persons were involved. The strike in which the largest number of persons was involved in 1916 was the men's clothing strike in New York City in December of that year, involving 60,000 employees. No strike in 1917 involved as many as 40,000 persons. In 1918 the strike involving the largest number of persons was that of machinists in northern New Jersey in July, where 60,000 persons struck.

and 1919.

In 1919 there were nine disturbances, in each of which 60,000 or more persons were directly concerned: A general strike in Tacoma and Seattle in February in sympathy with the metal-trades strikers, in which 60,000 persons were involved; 65,000 employees in the Chicago stockyards struck in August; 100,000 longshoremen along the Atlantic coast struck in October; 100,000 employees in the shipyards of New York City and vicinity struck in October; 115,000 members of the building trades were locked out in Chicago in July; 125,000 in the building trades in New York struck in February; 250,000 railroad shop workers struck in August; 367,000 iron and steel workers struck in September; and 435,000 bituminous coal miners struck in November. The number of persons concerned in these nine strikes and lockouts was upward of 1,600,000, while the total number of persons in strikes and lockouts during 1919 was 4,112,507. . . .

Extent of unionism among the employees involved in 1919.

In 1919 the employees were connected with unions in 1,811 strikes and 102 lockouts; they were not connected with unions in 135 strikes and 1 lockout; in 27 strikes and 2 lockouts they were not so connected at the time of striking, but organized almost immediately thereafter; in 1,280 strikes and 16 lockouts the relation of employees to unions was not reported. . . .

Causes of strikes and lockouts, 1916–1919.

The causes of strikes and lockouts were numerous. Aside from wages, few strikes occurred in which the cause was confined to one matter in dispute. The principal causes are shown in the table following:

PRINCIPAL CAUSES OF STRIKES AND LOCKOUTS BEGINNING IN 1916, 1917, 1918, AND 1919

Matter of Dispute	*Strikes*				*Lockouts*			
	1916	1917	1918	1919	1916	1917	1918	1919
Increase of wages	1,290	1,554	1,378	999	11	17	14	24
Decrease of wages	33	34	34	80	2	2	2	3
Nonpayment of wages	13	17	31	9	—	1	—	—
Increase of hours	3	18	6	8	4	—	—	—
Decrease of hours	111	127	79	106	2	5	—	8
Increase of wages and decrease of hours	479	374	251	554	2	4	2	9
Recognition of the union	344	275	188	366	22	39	35	31
Recognition and wages	122	149	95	127	2	5	2	5
Recognition and hours	22	27	18	19	1	1	—	1
Recognition, wages, and hours	68	56	66	178	5	—	—	7
General conditions	59	100	59	65	—	4	2	—
Conditions and wages	56	70	52	54	2	1	2	1
Conditions and hours	3	17	2	5	—	1	—	—
Conditions, wages, and hours	25	26	8	37	—	—	—	—
Conditions and recognition	—	13	7	14	—	—	—	—
Discharge of foreman demanded	17	37	54	15	—	1	—	—
Discharge of employees	122	204	138	141	5	3	—	—
Employment of nonunion men	70	76	62	—	4	1	—	—
In regard to the agreement	38	80	42	33	2	3	1	4
New agreement	37	22	4	36	3	2	—	—
Sympathy	32	70	34	100	1	1	1	—
Jurisdiction	19	21	16	15	—	—	—	1
Miscellaneous	120	183	172	91	7	5	9	15
Not reported	598	774	436	201	33	30	35	12
Total	3,681	4,324	3,232	3,253	108	126	105	121

195. Failure of voluntary arbitration: an example[1]

Mediation, conciliation and arbitration.

Disputes between labor and capital may be settled in a number of ways. Very frequently, the dispute terminates in a strike or lockout, in which case the two parties are said to settle their difficulties in the open conflict of industrial warfare. The dangers and injuries which often accompany industrial warfare have led many states to enact laws providing for a varying degree of industrial mediation, conciliation and arbitration. In practically all of the legislating states, however, arbitration is purely voluntary, and often fails because either labor or capital, or both, will not consent to arbitration. An excellent example of the failure of voluntary arbitration is the strike of the milk wagon drivers in New York in November, 1921. The following extracts concerning this strike are from the *New York Times:*

The milk wagon drivers' strike, New York, November 1, 1921.

(November 1, 1921.) Sweeping aside all efforts at Federal and municipal intervention, more than 12,000 milk wagon drivers and allied workers voted overwhelmingly at a wild and uproarious mass meeting in Madison Square Garden last night to strike. The walkout went into effect at midnight.

The New York Milk Conference Board, representing the distributors, immediately answered that they accepted the challenge of the unions and would run an "open shop." . . .

Territory and population affected.

The strike order which was issued to the men includes all milk distributors of New York City, Jersey City, Hoboken, Newark, . . . and as far north as the Massachusetts State line, covering a territory which has within its limits a population of more than 10,000,000 persons. . . .

It is claimed that the strikers had rejected the offer of conciliation.

I. Elkin Nathans, Secretary of the Milk Conference Board, said that the [grievances between the Board and the employees had been under consideration] by Charles Bendheim, Conciliation Commissioner of the U. S. Department of Labor, but the "union delegates wouldn't listen to him. I think [the unions] should have at least left the way open to renew the negotiations," [said Mr. Nathans.] . . .

(November 2, 1921.) Through the efforts of Mayor John F. Hylan, the milk distributors and representatives of the milk drivers' unions

[1] From the *New York Times*, issues of November 1, 2, 3 and 4, 1921.

will meet in conference to-day in an effort to adjust their differences. . . .

The mayor of New York attempts to settle the strike, because of the social necessity of milk.

The conference between the union leaders and the distributors yesterday afternoon was called by the Mayor in a telegram in which he said: "From the point of view of the public, the situation that arises because of this dispute between you is intolerable. Whatever the merits may be, and whichever is in the right, the controversy should be adjusted without discomfort or inconvenience to the public and without jeopardy to the health and lives of the babies, children and invalids in the community." . . .

The employers reject the offer of arbitration,

(November 3, 1921.) In a letter to Dr. Royal S. Copeland, Health Commissioner, the milk distributors said that they could not accept arbitration, believing that the situation called for permanent settlement and must be fought out. . . .

and are denounced by the Health Commissioner.

Aroused by the failure of the distributors to make a settlement possible, Commissioner Copeland came out of the office in a rush. "The responsibility now rests on the distributors," he said. "They want to make an open shop fight on an issue that means life and death to the inhabitants of this community." . . .

The strikers favor arbitration,

After a conference with his committeemen, [the spokesman of the unions] announced: "Our committee is agreeable to recommend at the Madison Square Garden meeting to-night that the men return to work under the old agreement while a board of arbitration takes up the question of wages."

but the representative of the employers

Asked what he had to say to that by Dr. Copeland, Mr. Nathans demanded the union's promise in writing. The Health Commissioner said that that could be arranged, that the unions had made a "fair proposition" and a "splendid suggestion," and called upon the two Conciliation Commissioners, Charles Bendheim and Owen Brown, who were present, and they agreed that arbitration was the best plan.

delays action on this suggestion.

Mr. Nathans said that he would suggest it to the distributors, but they did not want to "wrangle for six or eight months," asking that a definite period be stated for the duration of the arbitration proceedings. . . . Commissioner Copeland, warning that arguments might spoil the "pleasant afternoon," suddenly adjourned the meeting and had the unions prepare in writing their proposal to return to work. . . .

The result, as shown by the headlines of the *New York Times*, November 4, 1921.

(November 4, 1921.)

STRIKERS RIOTING ALL OVER THE CITY
DUMP THOUSANDS OF GALLONS OF MILK
HYLAN THREATENS TO SEIZE PLANTS

BRICKS RAIN ON TRUCKS.

Drivers and dealers are beaten. Policemen attacked, wagons stolen.

One dying, two badly hurt.

People with pails are turned back from station.
Small storekeepers cowed.

40 *arrests, four to jail.*

Courts score disregard for Public,
Threaten severe sentences in day of violence. . . .

196. The Kansas court of industrial relations [1]

Backwardness of compulsory arbitration in the United States.

The limitations of conciliation, mediation and voluntary arbitration as methods of settling industrial disputes have given rise to the demand for compulsory arbitration. Those favoring compulsory arbitration are particularly insistent that this device be applied to industrial disputes which threaten to deprive the public of such vital necessities as coal, milk, etc. Compulsory arbitration is well known in Australasia, but has not been regarded with wide favor in the United States. Nevertheless, an important step toward safeguarding the right of the public was taken when in January, 1920, the Legislature of Kansas established a Court of Industrial Relations. The chief aim of the court is not to arbitrate between labor and capital, as such, but to represent the public interest in industry. The following description of the court is from the *Monthly Labor Review:*

The Kansas Court of Industrial Relations, 1920.

The action of the Legislature of Kansas of this year [1920] in establishing a special tribunal of industrial relations has attracted widespread attention. The court consists of three judges appointed

[1] From the United States Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*. Washington, March, 1920; pp. 214–215.

by the governor, with the advice and consent of the senate, for three-year terms, and was immediately (Feb. 2) organized. . . . Its principal powers, from the standpoint of immediate interest, relate to the regulation of designated classes of employments, industries, etc., "declared to be affected with a public interest and therefore subject to supervision by the state." Included are the manufacturing of food products and clothing, and processes connected therewith; the mining or production of fuel; transportation, and all public utilities and common carriers as defined by existing statutes of the state.

Chief powers.

The court has power to make investigations, serve process, take testimony, and adopt rules and regulations to govern its own proceedings. Appeal lies to the supreme court from its findings. The public welfare is declared to require continuity and efficiency in the operation of the industries, etc., named; the willful hindering, delay, limiting or suspension of such operations are therefore declared to be contrary to the purpose of the act.

Further powers.

The court may act on its own initiative, or upon the complaint of either party to a controversy, or of ten citizen taxpayers of the affected community, or of the attorney-general of the state. Investigation may extend to the conditions surrounding the workers, their wages, returns to capital, the rights and welfare of the public, — "and all other matters affecting the conduct of said industries, employments, public utilities, or common carriers."

How the court is set in motion.

The court is authorized to order any changes necessary in the matter of working and living conditions, hours of labor, rules and practices, and a reasonable minimum wage or standard of wages. Appeal may be taken within 10 days to the supreme court. If after 60 days' compliance the order is found to be unjust, unreasonable, or impracticable, the aggrieved party may apply for a modification, and a hearing shall thereupon be had, and the court of industry may modify its orders for cause shown.

Authority with respect to working and living conditions.

Enforcement is by process issuing from the supreme court on proceedings by the industrial court. Persons willfully violating the provisions of the act, or any valid order of the court, are liable to fine not exceeding $100 or imprisonment not exceeding one year, or both. Officers of corporations or of labor unions who use their official positions willfully to influence or compel violations are guilty

Enforcement of the orders of the court.

of a felony and may be punished, upon conviction thereof, by a fine not exceeding $5,000, or imprisonment at hard labor for not exceeding two years, or both. In case production or operation is suspended, the court may take proceedings for the taking over and operation of the industries or work affected. In any case a fair wage is to be paid the workers and a fair return allowed the owners.

Violence and other forms of lawlessness.

It is an offense to do or perform any forbidden act, or fail or refuse to perform any act enjoined or directed by the court, acting either singly or in confederation with others; or to induce or intimidate any employer or worker to violate the orders of the court whether negatively or positively. Picketing, threats, abuse, or other forms of intimidation are unlawful in connection with the employments, industries, etc., governed by the act.

Recognition of collective bargaining.

Unions of workers are recognized, as is the right of collective bargaining. Individual workers are guaranteed freedom of action in making or terminating contracts, but it is unlawful for individuals to conspire with other persons to quit employment for the purpose of hindering, delaying, or interfering with the operation of industries covered by the act. Employees testifying as witnesses or otherwise active in securing the attention or action of the court may not be discharged or discriminated against because of such action.

Conclusion.

This is the most comprehensive attempt yet made to protect the public in cases of industrial disputes likely to affect its interests. . . .

197. The incorporation of the trade union [1]

The question of legal responsibility in industrial relations.

In industrial relations, as in other phases of life, experience has shown that the combination of great power and lack of responsibility is likely to lead to an abuse of power. Among both employees and employers organization is increasingly close and strong, and though this is in many ways desirable, this development increases the necessity of protecting the community against the aggressions of either labor or capital. Of great interest in this connection is the proposal to require trade unions to incorporate. This proposal is discussed

[1] From Louis D. Brandeis, *Address* delivered before the Economic Club of Boston, December 4, 1902.

in the following passage by Louis D. Brandeis, Associate Justice of the United States Supreme Court:

The incorporation of the trade union suggested.

Now the best friends of labor unions must and should admit that their action is frequently hasty and ill-considered, the result of emotion rather than of reason; and that their action is frequently arbitrary, the natural result of the possession of great power by persons not accustomed to its use; and that the unions frequently ignore laws which seem to hamper them in their efforts, and which they therefore regard as unjust. For these defects, being but human, no complete remedy can be found; but the incorporation of labor unions would, among other things, tend in some measure to correct them. . . .

Incorporation would restrain trade union action to a helpful degree.

Nearly every American who is not himself financially interested in a particular controversy sympathizes thoroughly with every struggle of the workingmen to better their own condition. But this sympathy . . . is quickly forfeited whenever the conduct of the strikers is unreasonable, arbitrary, lawless, or unjust. The American people with their common sense, their desire for fair play, and their respect for law, resent such conduct. The growth and success of labor unions, therefore, as well as their usefulness to the community at large, would be much advanced by any measures which tend to make them more deliberate, less arbitrary, and more patient with the trammels of a civilized community. . . . Incorporation would in some measure help to this end.

The practical immunity of unions for wrongs committed

When, in the course of a strike, illegal acts are committed, such as acts of violence . . . the individual committing the wrong is, of course, legally liable. . . . A union, although a voluntary unincorporated association, is legally responsible for its acts in much the same way that an individual, a partnership, or a corporation is responsible. . . . But while the rules of legal liability apply fully to the unions, though unincorporated, it is, as a practical matter, more difficult for the plaintiff to conduct the litigation, and it is particularly difficult to reach the funds of the union with which to satisfy any judgment that may be recovered. There has consequently arisen, not a legal, but a practical immunity of the unions, as such, for the most wrongs committed.

This practical immunity of the unions from legal liability is deemed

is not an advantage to the trade union.

by many labor leaders a great advantage. To me it appears to be just the reverse. It tends to make officers and members reckless and lawless, and thereby to alienate public sympathy and bring failure upon their efforts. It creates on the part of the employers, also, a bitter antagonism, not so much on account of lawless acts as from a deep-rooted sense of injustice, arising from the feeling that while the employer is subject to law, the union holds a position of legal irresponsibility. . . .

"Government by injunction" due largely to

This practical immunity of the labor unions from suit or legal liability is probably largely responsible for the existence of the greatest grievances which labor unions consider they have suffered at the hands of the courts: that is, the so-called "government by injunction." It has come about in this way: An act believed to be illegal is committed during a strike. If that act is a crime, a man may be arrested, [though not necessarily convicted.] Many acts, however, may be illegal which are not criminal, and for these the only remedy at law is a civil action for damages; but as the defendant is usually financially irresponsible, such action would afford no remedy.

the legal irresponsibility of the trade union.

The courts, therefore, finding acts committed or threatened, for which the guilty parties cannot be punished as for a crime, and cannot be made to pay damages by way of compensation, have been induced to apply freely, perhaps too freely, the writ of injunction. . . . If the courts had been dealing with a responsible union instead of with irresponsible defendants, they would, doubtless in many of the cases have refused to interfere by injunction and have resolved any doubts in favor of the defendants instead of the plaintiffs. . . .

The course which the union should follow.

It has been urged that the unions might be willing to submit themselves readily to suit if the rules of law, as now administered by the courts, were not unjust to labor. I am inclined to think that there have been rendered in this country many decisions which do unduly restrict the activity of the unions. But the way to correct the evil of an unjust decision is not to evade the law but to amend it. The unions should take the position squarely that they are amenable to law, prepared to take the consequences if they transgress, and thus show that they are in full sympathy with the spirit of our people, whose political system rests upon the proposition that this is a government of law, and not of men.

198. Proposed principles of industrial relations [1]

Increasing number of plans for industrial peace.

The growing desire to decrease the antagonisms between labor and capital has led to numerous programs of industrial procedure. Some of these programs or proposals have frankly favored the interests of the laborers, while others have tended to favor the employers. Often the interests of the public at large have been inadequately represented in these so-called plans for industrial peace. Occasionally, a program is put forward which sincerely attempts to do justice, not only to the interests of labor and of capital, but of the public as well. An example of this last-named type of program is the "Labor Program by Business," drawn up by the Chamber of Commerce of the United States in 1919. The program follows:

The Chamber of Commerce of the United States formulates thirteen principles of industrial relations,

Blind leaders of the blind persist in deceiving both parties to the readjustment in industrial relations.

The all-important question is whether the dominant voice in labor and in the interest of the employer shall tend to emphasize the existing differences in militant terms that will ultimately provoke the belief that alleged rights must be battled for; or whether the wiser group, knowing that the industrial program of the nation is not in reality a militant program but one of coöperation, shall gain the ascendency and throttle the "red" tendencies of which the situation is possessed.

It was in response to the demand for announcing a program of coöperation that the Chamber of Commerce of the United States undertook the study of primary principles of such a program and started with this progress step by step until the basis of at least a really wise and workable plan could be evolved.

For several years the National Chamber has had committees studying questions on industrial relations. The latest committee was appointed last December and having advantage of the study over discoveries of earlier committees, it has formulated a statement of several principles to be followed in the United States. . . .

The principles formulated by this committee are to be placed before the 1100 commercial and trade organizations in the Chamber's

[1] From the Chamber of Commerce of the United States, *A Labor Program by Business*. (Printed in *The Nation's Business*, April, 1919; p. 13.)

membership for their consideration. The principles which will thus be submitted are:

which it believes would safeguard the public interest,

I. Industrial enterprise, as a source of livelihood for both employer and employee, should be so conducted that due consideration is given to the situation of all persons dependent upon it.

II. The public interest requires adjustment of industrial relations by peaceful methods.

III. Regularity and continuity of employment should be sought to the fullest extent possible and constitute a responsibility resting alike upon employers, wage-earners and the public.

IV. The right of workers to organize is as clearly recognized as that of any other class or part of the community.

further the interests of both labor and capital,

V. Industrial harmony and prosperity will be most effectually promoted by adequate representation of the parties in interest. Existing forms of representation should be carefully studied and availed of in so far as they may be found to have merit and are adaptable to the peculiar conditions in the various industries.

VI. Whenever agreements are made with respect to industrial relations they should be faithfully observed.

VII. Such agreements should contain provision for prompt and final interpretation in the event of controversy regarding meaning or application.

VIII. Wages should be adjusted with due regard to the purchasing power of the wage, and to the right of every man to an opportunity to earn a living at fair wages, to reasonable hours of work and working conditions, to a decent home, and to the enjoyment of proper social conditions.

IX. Fixing of a basic day as a device for increasing compensation is a subterfuge that should be condemned.

and increase the efficiency of the productive mechanism.

X. Efficient production in conjunction with adequate wages is essential to successful industry. Arbitrary restriction on output below reasonable standards is harmful to the interests of wage-earners, employers, and the public and should not be permitted. Industry, efficiency and initiative, wherever found, should be encouraged and adequately rewarded, while indolence and indifference should be condemned.

XI. Consideration of reduction in wages should not be reached until possibility of reduction of costs in all other directions has been exhausted.

XII. Administration of employment and management of labor should be recognized as a distinct and important function of management and accorded its proper responsibility in administration organization.

XIII. A system of national employment offices, with due provision for coöperation with existing state and municipal systems, can be made, under efficient management and if conducted with due regard to the equal interests of employers and employees in its proper administration, a most helpful agency, but only if all appointments are made strictly subject to the Civil Service Law and rules. Policies governing the conduct of a national system of employment offices should be determined in conjunction with advisory boards, — national, state and local, — equally representative of employers and employees.

Questions on the foregoing Readings

1. Define a labor organization.
2. Why did the labor organization arise?
3. When did the national labor organization become important in this country?
4. Discuss the nature of the Knights of Labor.
5. Wherein does the American Federation of Labor differ from the Knights of Labor?
6. Discuss the strength of the American Federation of Labor.
7. What are the two general methods by means of which the union attempts to better the economic condition of its members?
8. What are two of the most serious types of industrial disturbances?
9. Compare the number of strikes in the United States during the years 1916, 1917, 1918, and 1919.
10. Compare the number of lockouts during the same years.
11. What was the total number of persons involved in strikes and lockouts during the year 1919?
12. Name some of the more important causes of strikes and lockouts.
13. Why is voluntary arbitration often a failure?
14. Illustrate the limits of voluntary arbitration with reference to the strike of the milk wagon drivers in New York in 1921.
15. What has been responsible for the increasing demand that industrial disputes be settled by compulsory arbitration?

16. When was the Kansas Court of Industrial Relations established?
17. Outline the powers of this court.
18. How is the court set in motion?
19. How are the decisions of the court enforced?
20. Who is Louis D. Brandeis?
21. Explain the statement that "incorporation would restrain trade union action to a helpful degree."
22. What, according to Mr. Brandeis, are the disadvantages to the union of its practical immunity from legal responsibility?
23. What, in the opinion of Mr. Brandeis, is the course which the unions ought to follow?
24. What is the "all-important question" in industrial relations?
25. Give the main provisions in the labor program proposed in 1919 by the Chamber of Commerce of the United States.

CHAPTER XXXIV

LABOR LEGISLATION

199. The conservation of human life [1]

Growing importance of conservation.

One of the most significant developments in contemporary American life is the movement toward conservation. Since the days of President Roosevelt the question of the conservation of natural resources has been attracting wide attention, and yet this is only one phase of conservation. The greater and more inclusive problem is that of national efficiency. The waste of human life and energy in the United States is a menace to our national efficiency, and the elimination or reduction of this waste constitutes a grave social problem. Some phases of this problem are discussed in the following extract from the *Report on National Vitality, Its Wastes and Conservation*, prepared for the National Conservation Commission in 1908, by an American economist, Professor Irving Fisher:

PART II — BREADTH OF LIFE *versus* INVALIDITY

Chapter III — *Prevalence of Serious Illness*

Loss of time through death and sickness.

I. *Loss of time.* — Life is shortened by death and narrowed by invalidity. The ideal life, with respect to health, would be free from illness and disability of every kind. To approximate such an ideal is the aim of hygiene. It is usually true that the healthier a life the longer it will last. Humboldt maintained that he had lived four working lives by retaining a working power double the average for double the average number of years. According to Farr, for every death there is an average severe sickness of two years, or for each death per year there are two persons sick throughout the year.

[1] From the Committee of One Hundred on National Health, *Report on National Vitality, Its Wastes and Conservation*. Prepared by Irving Fisher. Washington, 1909. Summary of Parts II and IV.

This would mean in the United States that, as there are about 1,500,000 annual deaths, there will always be about 3,000,000 persons on the sick list, which is equivalent to about thirteen days per capita. . . .

Accidents.

American railways in 1907–1908 killed nearly 11,800 and injured nearly 111,000 persons. The deaths and disablements from accidents in industry, although less carefully recorded, also represent a great and needless impairment of efficiency. . . .

Chapter V — *Prevalence of undue fatigue*

Evils of a too long working day.

. . . 6. *The working day.* — The present working day, from a physiological standpoint, is too long, and keeps the majority of men and women in a continual state of over-fatigue. It starts a vicious circle, leading to the craving of means for deadening fatigue, thus inducing drunkenness and other excesses. Experiments in reducing the working day show a great improvement in the physical efficiency of laborers, and in many cases result in even increasing their output sufficiently to compensate the employer for the shorter day. Several examples of such a result exist, but the real justification for a shorter work day is found in the interest of the race, not the employer. One company, which keeps its factory going night and day, found, on changing from two shifts of twelve hours each to three shifts of eight hours each, that the efficiency of the men gradually increased, and the days lost per man by illness fell from seven and one-half to five and one-half per year. Public safety requires, in order to avoid railway collisions and other accidents, the prevention of long hours, lack of sleep and undue fatigue in workmen. . . .

Part IV — Results of Conserving Life

Chapter XII — *The Money Value of Increased Vitality*

Preventable human wastes measured in money.

1. *Money appraisal of preventable wastes.* — Doctor Farr has estimated the net economic value of an English agricultural laborer at various times of life by discounting his chance of future earnings after subtracting the cost of maintenance. On the basis of this table we may construct a rough estimate of the worth of an average American life at various ages, assuming that only three-fourths of those of working age are actually earners of money or housekeepers.

Example of the United States.

It gradually rises from a value of $90 in the first year to $4,200 at the age of 30, and then declines until it becomes negative for the higher ages. . . . Applying this table to [our] existing population at various ages, . . . we find that the average value of a person now living in the United States is $2,900, and the average value of the lives now sacrificed by preventable deaths is $1,700. . . . Applying the $2,900 to the population of eighty-five and a half millions, we find that our population may be valued as assets at more than $250,000,000,000; and since the number of preventable deaths is estimated at 630,000, the annual waste from preventable deaths is 630,000 times $1,700 or about $1,000,000,000. This represents the annual preventable loss of potential earnings. . . .

200. Minimum standards for child laborers [1]

Progress in child labor legislation.

From the standpoint of national health, one of the most serious evils in American life is the widespread employment of young children in industrial establishments. Fortunately there is an increasingly large number of laws which limit and control child labor. Thanks to the publicity work of such organizations as the National Child Labor Committee, the public is becoming aware of the necessity of still further safeguarding young children, so that the future will undoubtedly see a steady reduction in the evil of child labor. The following are the minimum standards for children entering employment, as drawn up by the Washington and Regional Conferences on Child Welfare in 1919:

Minimum Standards for Children Entering Employment

Standards for children entering industry, with respect to age,

Age Minimum. — An age minimum of 16 for employment in any occupation, except that children between 14 and 16 may be employed in agriculture and domestic service during vacation periods until schools are continuous throughout the year.

An age minimum of 18 for employment in and about mines and quarries.

An age minimum of 21 for girls employed as messengers for telegraph and messenger companies.

[1] From the *Washington and Regional Conferences on Child Welfare*, 1919. (Printed and distributed by the National Child Labor Committee.)

An age minimum of 21 for employment in the special-delivery service of the U. S. Post Office Department.

Prohibition of the employment of minors in dangerous, unhealthy, or hazardous occupations, or at any work which will retard their proper physical or moral development.

education, *Educational Minimum.* — All children between 7 and 16 years of age shall be required to attend school for at least nine months each year.

Children between 16 and 18 years of age who have completed the eighth but not the high-school grade, and are legally and regularly employed, shall be required to attend day continuation schools at least eight hours a week.

Children between 16 and 18 who have not completed the eighth grade or children who have completed the eighth grade and are not regularly employed shall attend full-time school. Occupational training especially adapted to their needs shall be provided for those children who are unable because of mental subnormality to profit by ordinary school instruction.

Vacation schools placing special emphasis on healthful play and leisure time activities, shall be provided for all children.

physical condition, *Physical minimum.* — A child shall not be allowed to go to work until he has had a physical examination by a public-school physician or other medical officer especially appointed for that purpose by the agency charged with the enforcement of the law, and has been found to be of normal development for a child of his age and physically fit for the work at which he is to be employed.

There shall be annual physical examination of all working children who are under 18 years of age.

hours of employment, *Hours of employment.* — No minor shall be employed more than 8 hours a day or 44 hours a week. The maximum working day for children between 16 and 18 shall be shorter than the legal working day for adults.

The hours spent at continuation schools by children under 18 years of age shall be counted as part of the working day.

Night work for minors shall be prohibited between 6 P.M. and 7 A.M.

Minimum wage. — Minors at work shall be paid at a rate of wages which for full-time work shall yield not less than the minimum essential for the "necessary cost of proper living, as determined by a minimum wage commission or other similar official board." During a period of learning they may be rated as learners and paid accordingly. The length of the learning period should be fixed by such commission or other similar official board, on educational principles only. and wages.

Placement and employment supervision. — There shall be a central agency which shall deal with all juvenile employment problems. . . . Some additional standards.

Employment certificates. — Provision shall be made for issuing employment certificates to all children entering employment who are under 18 years of age. . . .

Compulsory attendance laws. — Full-time attendance officers adequately proportioned to the school population shall be provided in cities, towns, and counties to enforce the school attendance law. . . .

Factory inspection and physical examination of employed minors. — The number of [factory] inspectors shall be sufficient to insure semi-annual inspection of all establishments in which children are employed, and such special inspections and investigations as are necessary to insure the protection of the children. Factory inspection and physical examination.

Provision should be made for a staff of physicians adequate to examine annually all employed children under 18 years of age.

201. Standards governing the employment of women [1]

Closely related to the question of child labor is the employment of women in industrial establishments. While most students agree that the employment of women ought to be safeguarded rather than actually prohibited, nevertheless such employment may give rise to problems fully as grave as those arising from child labor. During recent years the proportion of gainfully employed women in the United States has been increasing steadily, and the question of their protection in industrial pursuits is attracting more and more attention. In 1918 the United States Department of Labor drew Increasing importance of the problem of women in industry.

[1] From the United States Department of Labor, *Standards for the Employment of Women in Industry*. Washington, 1918, Bulletin No. 3.

up the following standards governing the employment of women in industry:

STANDARDS RECOMMENDED FOR THE EMPLOYMENT OF WOMEN

(In the following outline the italic type in the text indicates those provisions which are held to be of the most vital importance.)

I. Hours of Labor

The hours of labor for women in industry.

1. *Daily hours. No women shall be employed or permitted to work more than eight hours in any one day. The time when the work of women employees shall begin and end and the time allowed for meals shall be posted in a conspicuous place in each work room and a record shall be kept of the overtime of each woman worker.*

2. *Half holiday on Saturday.* Observance of the half-holiday should be the custom.

3. *One day of rest in seven. Every woman worker shall have one day of rest in every seven days.*

4. *Time for meals. At least three-quarters of an hour shall be allowed for a meal.*

5. *Rest periods. . . .*

6. *Night work. No women shall be employed between the hours of ten P.M. and six A.M.*

II. Wages

Wages.

1. *Equality with men's wages. Women doing the same work as men shall receive the same wages with such proportionate increases as the men are receiving in the same industry. . . .*

2. *The basis of determination of wages. Wages should be established on the basis of occupation and not on the basis of sex. The minimum wage rate should cover the cost of living for dependents and not merely for the individual.*

III. Working Conditions

Working conditions in establishments employing women.

1. *Comfort and sanitation.* — State labor laws and industrial codes should be consulted with reference to provisions for comfort and sanitation. Washing facilities, with hot and cold water, soap and individual towels, should be provided in sufficient number and in accessible locations to make washing before meals and at the close of the work day convenient.

Toilets should be separate for men and women, clean and accessible. Their numbers should have a standard ratio to the number of workers employed. Workroom floors should be kept clean. Dressing rooms should be provided adjacent to washing facilities, making possible change of clothing outside the workrooms. Rest rooms should be provided. Lighting should be arranged that direct rays do not shine into the workers' eyes. Ventilation should be adequate and heat sufficient. Drinking water should be cool and accessible with individual drinking cups or bubble fountain provided. Provision should be made for the workers to secure a hot and nourishing meal eaten outside the workroom, and if no lunch rooms are accessible near the plant, a lunch room should be maintained in the establishment.

2. *Posture at work.* — Continuous standing and continuous sitting are both injurious. A seat should be provided for every woman employed and its use encouraged. It is possible and desirable to adjust the height of the chairs in relation to the height of machines or work tables, so that the worker may with equal convenience and efficiency stand or sit at her work. The seats should have backs. If the chair is high, a foot rest should be provided.

3. *Safety.* — Risks from machinery, danger from fire and exposure to dust, fumes or other occupational hazards should be scrupulously guarded against by observance of standards in State and Federal codes. First aid equipment should be provided. Fire drills and other forms of education of the workers in the observance of safety regulations should be instituted. . . .

IV. Home Work

1. *No work shall be given out to be done in rooms used for living or sleeping purposes or in rooms directly connected with living or sleeping rooms in any dwelling or tenement. . . .* Home work.

202. Results of minimum wage legislation [1]

One method of protecting women and children in industry is through minimum wage legislation. The essential feature of a minimum wage law is that it provides that in all or specified occupations certain

[1] From the United States Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*. Washington, March, 1921; pp. 17–20.

Origin and development of minimum wage legislation in the United States.

individuals may not be employed at less than a designated wage. The first minimum wage statute in this country was enacted by Massachusetts in 1912, but so rapidly did the movement spread that by 1923 more than a dozen states had minimum wage laws on their statute books. In every case, such legislation applies only to the employment of women and children, men being exempted from the operation of this type of law. In 1919 the United States Department of Labor conducted a survey of minimum wage legislation in the United States in order to discover its effects. The following is an extract from the report of the Department:

Extent of the survey conducted by the U. S. Department of Labor in 1919.

[What is the attitude of the employers toward the law? The agent of the Bureau of Labor Statistics in the Department of Labor], in his tour of ten states was, of course, able to interview only a fractional part of the employers affected. However, the aggregate amounted to above 260, with more than 62,000 women and minors in their employment. The number of employers who expressed actual opposition to the law was almost negligible, though some were vigorous in their denunciation of it. The great majority accepted the law as a declaration of state policy and declared themselves ready to comply therewith, while many went beyond this and expressed cordial approval of its principle and purpose. . . .

Attitude of employers toward the minimum wage law in San Francisco

Thus, taking a run of expressions in San Francisco as they were obtained, a department-store employer said that he had no objection to the law, that it worked no hardship, that the girls were interested to make good, and that the law was a great help in developing standards. The next visit was to a 5 and 10 cent store in which the law was said to be satisfactory, causing conditions which tended toward stability. Next a large department store reported the law "has an effect to stabilize and standardize employment, this being one of the chief accomplishments of the law"; "have had no dismissal or reduction in twelve months on account of incompetency." Next a smaller department store (275 females) reported it "not objectionable," while the women "think it greatly worth while." Next a department store: "Is splendid, rates certainly not too high," and it was believed that employers generally favored the law. One of the largest stores: "Such a law is the only thing to have"; another department store: "Regard it most favorably"; cannery: "Is satis-

factory"; . . . chocolate factory: "Want Federal law to protect against interstate competition"; glacé fruits: "No objection to law, but should be general"; candies: "Has good effect"; . . . lithograph company: "Law no check on business"; . . . clothing factory: "Attitude is favorable, though the law should be general"; shirts and overalls: "Is a good thing"; 5 and 10 cent store: "Approve of the law, but should be general"; knit-goods factory: "Find it better to pay above minimum, though think the law has no effects on the quality of the workers"; clothing factory: "Law no check on business"; millinery: "No objection to law since it treats all alike"; . . . bags: "Law is good thing, as it holds out prospect of advance to those who stay through learning period." . . .

and in other cities.

This complete roster of the places visited in an important city in which union conditions only partially prevail is believed to be fairly representative. . . . Expressions found in the "Twin Cities" of Minnesota run as follows: "Law not desirable though it has a good effect for low-grade establishments"; "rate reasonable now but may be too high under other conditions"; "no objection"; "all right for skilled, but makes rate for learners too high and advances too rapid"; "law all right"; "law is acceptable"; "tends to stabilize and gives self-respect to workers"; "approve the law, rates might be higher"; "dislike it very much"; "glad to have it"; "help is better and more contented"; "have been hurt and no help"; "not liked, paternalistic"; "law is all right"; "all right, but learners' rates too low"; "are ahead of law and intend always to comply"; "is all right and might go higher"; "attitude favorable"; "approve the law and could stand higher rate if uniform"; "keep ahead of law"; "principle is good"; "gladly comply"; "hearty coöperation"; . . .

The attitude of organized labor.

Organized labor was, for the most part, found to be favorable to legislation of this type, the claim being made in several states that the act was "organized labor's bill." State conventions have gone on record in favor of the measures and their adequate enforcement, so that the occasional criticism made to the effect that the law was bad, because it led the women to depend on it rather than to organize, must be discounted as not indicating the general opinion of union labor on the subject.

Conclusion.

The conclusion is inevitable that the allegations of injury to the workers as a result of minimum wage laws are without foundation, and that employers find it at least feasible to operate under the law, while many of them are its ardent supporters. . . .

203. A Typical workmen's compensation law [1]

Social insurance in the United States.

Of increasing importance in the field of labor legislation is social insurance. Social insurance involves the compulsory insurance of industrial employees against accident, sickness, old age, or unemployment. Up to the present time the only form of social insurance which has met with wide favor in the United States is insurance against industrial accidents. This last named type of insurance is now quite generally provided under so-called workmen's compensation laws. The following extracts from the Workmen's Compensation Law of New York will illustrate something of the purpose and scope of such legislation:

Title and application of the law.

ARTICLE 1, *Section 1. Short title.* — This chapter shall be known as the "workmen's compensation law."

Section 2. Application. — Compensation provided for in this chapter shall be payable for injuries sustained or death incurred by employees engaged in the following hazardous employments: [Here follows a detailed list of employments, classified into forty-seven groups.] . . .

The liability of the employer.

ARTICLE 2, *Section* 10. *Liability for compensation.* — Every employer subject to the provisions of this chapter shall pay or provide as required in this chapter compensation according to the schedule of this article for the disability or death of his employee resulting from an accidental personal injury sustained by the employee arising out of and in the course of his employment, without regard to fault as a cause of such injury, except where the injury is occasioned by the wilful intention of the injured employee to bring about the injury or death of himself or of another, or where the injury results solely from the intoxication of the injured employee while on duty. . . .

[1] From the *Statutes of the State of New York, Workmen's Compensation Law*, as amended to August 1, 1920.

A two-weeks' exemption period.

Section 12. *Compensation not allowed for first two weeks.* — No compensation shall be allowed for the first fourteen days of disability, except the benefits provided for in section thirteen of this chapter, provided, however, that in case the injury results in disability of more than forty-nine days the compensation shall be allowed from the date of the disability.

The treatment and care of the injured workmen.

Section 13. *Treatment and care of injured employees.* — The employer shall promptly provide for an injured employee such medical, surgical or other attendance or treatment, nurse and hospital service, medicine, crutches and apparatus as the nature of the injury may require during sixty days after the injury; but the [state commission administering the law] may, where the nature of the injury or the process of recovery requires a longer period of treatment, require the same from the employer. . . .

Basis of compensation.

Section 14. *Weekly wages basis of compensation.* — Except as otherwise provided in this chapter, the average weekly wages of the injured employee at the time of the injury shall be taken as the basis upon which to compute compensation or death benefits. . . .

Schedule governing the payment of amounts due the injured workman.

Section 15. *Schedule in case of disability.* —The following schedule of compensation is hereby established:

1. Total permanent disability. In case of total disability adjudged to be permanent sixty-six and two-thirds per centum of the average weekly wages shall be paid to the employee during the continuance of such total disability. Loss of both hands, or both arms, or both feet, or both legs, or both eyes, or of any two thereof shall, in the absence of conclusive proof to the contrary, constitute permanent total disability. . . .

2. Temporary total disability. In case of temporary total disability, sixty-six and two-thirds per centum of the average weekly wages shall be paid to the employee during the continuance thereof, but not in excess of three thousand five hundred dollars, except as otherwise provided in this chapter.

3. Permanent partial disability. In case of disability partial in character, but permanent in quality, the compensation shall be sixty-six and two-thirds per centum of the average weekly wages and shall be paid to the employee for the period named in the schedule, as follows:

Thumb. For the loss of a thumb, sixty weeks.

First finger. For the loss of a first finger, commonly called index finger, forty-six weeks.

Second finger. For the loss of a second finger, thirty weeks.

Third finger. For the loss of a third finger, twenty-five weeks.

Fourth finger. For the loss of a fourth finger, commonly called the little finger, fifteen weeks.

[The remainder of this section specifies the nature and extent of compensation for injury sustained to other parts of the body.]

The death benefit.

Section 16. Death benefits. — If the injury causes death, the compensation shall be known as a death benefit and shall be payable in the amount and to and for the benefit of the persons following: [The remainder of this section specifies the amount of the funeral expenses, and the nature and extent of compensation paid the surviving wife, dependent husband, dependent children or other designated dependents.] . . .

204. The constitutionality of labor legislation [1]

The opposition to labor legislation.

The student of American politics cannot but be struck by the recent tendency of our legislatures to enact statutes which have for their prime purpose the protection of wage-earners. Yet marked as this tendency has been, labor legislation in this country has met with considerable opposition. Our system of written constitutions and our dual form of government, dividing responsibility for action or inaction between the Federal government and the various state governments, introduce many complications. The jealousy existing between states often prevents the passage of social legislation, and the plea of "constitutionality" may nullify statutes duly enacted. In the following selection, a careful observer of American labor conditions, Professor Frank Tracy Carlton, discusses this last-named obstacle to labor legislation:

Certain negative clauses

Trend of Court Decisions. — The extreme aversion to legal limitations upon the independence of the individual, and the excessive fear of governmental control, have led to some unanticipated consequences. Certain negative clauses which restrain constituted

[1] From Frank Tracy Carlton, *The History and Problems of Organized Labor.* D. C. Heath & Co., 1911; pp. 269–272.

authority were incorporated into our state and Federal constitutions. These clauses were aimed at the ever-present specter of tyrannical government. By a peculiar transmutation through judicial interpretation they have become bulwarks behind which property owners are able to strongly intrench themselves. The familiar clause declaring that no person shall "be deprived of life, liberty, or property, without due process of law," was originally inserted into our constitutional system in order to prevent confiscation of property by tyrannical officials.

in our Federal and state constitutions have been interpreted so as

Another familiar prohibition incorporated into our constitutional system for similar reasons declares that no law may be passed which interferes with the freedom of private contracts or engagements. Again, more or less defined prohibitions of special or class legislation which grants special privileges are found in the constitutions of many states; and the fourteenth amendment to the Federal Constitution among other things declares "that no state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States."

artificially to strengthen individual and corporate rights.

Strictly interpreted, these clauses seem to constitute a constitutional prohibition of legislation which interferes with the so-called freedom of contract, and of class legislation. In reality, these prohibitions artificially strengthen what are called individual and corporate rights, and give those rights an almost impregnable position. . . .

Labor legislation and the police power.

Labor legislation constitutes an interference with the original and unmodified doctrines of liberty and of the freedom of contract. Labor legislation when sustained by the courts is sustained as a legitimate exercise of the police power. The decisions are still conflicting, and the outcome in a given case involving the application of the police power, uncertain; but the philosophy underlying our judicial system is undoubtedly undergoing radical and far-reaching modifications.

Conservative influence of the Supreme Court, 1900 to 1910.

The majority of the members of the Supreme Court of the United States during the decade from 1900 to 1910 were old men. Several were over seventy years of age; and a recent appointee is nearly seventy years old. These men received their training and had their ideals and philosophy of life definitely formulated a generation ago.

But since that time the fundamentals of economic and political science have been subjected to important transformations. As younger men, trained in the newer school of economics and saturated with the recent teachings of our colleges and universities, come to the front in the legal profession, we may confidently expect the older *laissez faire* or individualistic theory of the law and of justice to be more rapidly modified.

The recent trend of court decisions is favorable to the development of labor legislation.

The trend of court decisions has been away from the traditional idea of freedom and *laissez faire*, and toward an increase in the police power of the state in the interests of practical and tangible freedom for the individual. The pressure of industrial change has been so potent and compelling that legal precedents, social inertia, and the direct opposition of certain classes in the community have gradually, but tardily, yielded. There is reason to believe that many limitations now deemed essential by our courts will soon be seen to be non-essential and subversive of free institutions in the twentieth century. . . . One student of this problem has arrived at the conclusion that the constitutionality of a restrictive labor law depends upon its wisdom. "In other words, granted that a restriction is wise under the given condition, it is an easy task to prove that it is also constitutional." This over-enthusiastic statement is borne out in a large measure by the court decisions relative to the constitutionality of laws limiting the hours of the working day. It is perhaps needless to remark that the interpretation of what is wise or unwise in a given situation will be subject to wide variation. . . .

Questions on the foregoing Readings

1. What is an important menace to our national efficiency?
2. Discuss the loss of time in the United States which is due to invalidity.
3. What are the effects of a shortened working day upon health?
4. Discuss the money appraisal of preventable waste in human life in the United States.
5. Outline the age minimum for the employment of children, as formulated by the Washington and Regional Conferences on Child Welfare.
6. What can be said as to the educational minimum for children entering industrial employments?
7. What physical minimum should be insisted upon for children entering industry?

8. What limitations should be placed upon child labor with respect to hours of employment?
9. What provision should be made for the physical examination of employed minors?
10. What problem is closely related to the question of child labor?
11. Is it the opinion of most students of the problem that the employment of women should be prohibited, or that it should merely be safeguarded?
12. Outline the standards recommended by the Department of Labor with respect to the hours during which women ought to be employed.
13. What are the standards of this Department with respect to the wages of women?
14. Outline the chief recommendations of the Department of Labor with respect to the conditions under which women ought to work.
15. What is the recommendation of the Department with respect to home work?
16. When and where was the first minimum wage law enacted in this country?
17. Summarize the opinions of employers toward the minimum wage, as ascertained by the Bureau of Labor Statistics in 1919.
18. What, in general, was found to be the attitude of organized labor toward this type of legislation?
19. What forms may social insurance take? Which of these forms is well developed in the United States?
20. Summarize the provisions of the Workmen's Compensation Law of New York with respect to the employer's liability for compensation.
21. What does this law say regarding the treatment and care of injured employees?
22. What does the law say concerning the schedule of compensation in case of disability?
23. What are some of the factors which have obstructed the progress of labor legislation in this country?
24. Enumerate some constitutional clauses which have artificially strengthened individual and corporate rights.
25. What reason does Professor Carlton give for the conservative character of the decisions of our Supreme Court between 1900 and 1910?
26. What does Professor Carlton conclude as to the recent trend of court decisions with respect to labor legislation?

CHAPTER XXXV

THE PROBLEMS OF THE INDIVIDUAL

205. The consumer controls production [1]

The importance of consumption only tardily recognized.

The study of economics is ordinarily divided into four sections: production, exchange, distribution, and consumption. Of these four divisions of the subject, consumption has been the last to attract widespread attention. Of recent years, however, economists are coming more and more to realize that ultimately the fate of the whole industrial mechanism is dependent upon the attitude and actions of the consumer. Few economists in this country have given this fact the emphasis which it has received from the hands of Professor Thomas Nixon Carver, who discusses the relation of production to consumption in the following passage:

The way people spend their money determines the course of production.

It cannot be too much emphasized that in a free industrial society the way in which the people spend their money determines the direction in which the productive energy of the community is utilized. If, for example, no one is willing to purchase tools, or instruments of production, but everyone demands articles of immediate enjoyment, tools will, of course, have no buyers and the tool-making industries will have no inducement to expand or even to continue. All the productive energy will be absorbed by the luxury-producing industries and even they will be poorly equipped, because no one will be willing to invest in equipment. Where one group of people is demanding luxuries for immediate consumption and another group is willing to invest in the tools of production, the latter group may then equip the luxury-producing industries with tools in order to produce for the supply of the former group.

If all were willing to spend money on tools and no one were willing to spend very much on extravagant frills, there would be an abundance

[1] From Thomas Nixon Carver, *War Thrift*. Oxford University Press, New York, 1919; pp. 8–10.

of tools for the production of all the things which would supply the moderate needs of the community. With these moderate needs supplied by the abundant productive power of the community, the people could either work short hours or in a leisurely manner, or they could use their abundant energy in producing things of durable or permanent value, such as school buildings of architectural beauty, roads, irrigation projects, the drainage of swamps and various other enterprises which would provide for posterity, enlarge the possibility of life in the national territory, and greatly expand the national power and greatness.

The example of the people of Athens.

If the people of Athens had chosen not to adorn the Acropolis with architectural monuments, they might for a long time have consumed somewhat more luxurious food, worn somewhat more costly apparel and amused themselves in somewhat more expensive ways. That is, they could have devoted the national energy to the production of more luxurious food, clothing, and so forth. Instead of that, they chose to consume slightly less costly clothing than they might have had, in order to erect those buildings which, if the Athenians had done nothing else, would have helped to justify their existence. It was the direction in which they decided to spend their money which decided whether the national energy should be used in the production of ephemeral utilities or durable sources of satisfaction.

The people of those medieval cities who erected cathedrals as monuments of their religious faith could, if they had chosen otherwise, have fed, clothed and amused themselves in more expensive ways, that is, the man-power which was used in the erection of churches could have been used in the production of objects of temporary gratification. They chose to spend their money for durable rather than for perishable goods and that is why the world was enriched by the religious architecture of the medieval period.

The choice before the modern city.

Any modern city that chooses to get along with ineffective school buildings can for a few years keep its tax rate down slightly, and the people may therefore have a little more money to spend on trivialities. If, on the other hand, they choose to build school buildings whose architecture will enrich the world as the church architecture of the medieval period did, they will have to cut down the amount of money which they would spend for other things and release a certain amount

of productive energy from the production of frills and luxuries and make it available for the production of these objects of durable satisfaction.

Whether the production of durable things is called an act of thrift or an act of extravagance

Whether one thinks that it was the thrift or the extravagance of the Athenians which built the Parthenon, will depend upon whether one thinks that the building of the Parthenon was an important thing to do or not. If he regards it as a triviality, then he will call the building of it an extravagance, and he will doubtless think how much better it would have been if the Athenians had used the same amount of money in purchasing and the same amount of energy in producing things which would have fed their bellies or adorned their bodies.

will depend upon the viewpoint and ideals of the people.

If, on the other hand, he thinks that it was a very important thing to do — more important than anything else that they could probably have done with their money and their productive energy, — he would say that it was thrift which built the Parthenon. The same question . . . arises in every city of the present day when the problem of school architecture is discussed. To one who regards school architecture as a triviality, the building of magnificent and well-equipped school buildings seems an extravagance. He would doubtless regret that so much productive power should be used in the building of such things when it might be used for the production of things which would gratify the appetite or some other temporary desire. But to one who regards school architecture as something very important, the erection of such school buildings . . . would be called an act of thrift. . . .

206. The nature of extravagance[1]

The high cost of living is sometimes really the cost of high living

From the preceding discussion it should be clear that the fate of an industrial community will depend, ultimately, upon the attitude of the individuals composing it. A nation composed of individuals intent upon thrift will prosper; on the other hand, a country inhabited by a slothful and extravagant people is threatened with decay. In our day a problem of great importance is what is popularly known as the "high cost of living," but, as some witty individual has pointed out, the trouble very often is, not the high cost of living, but the

[1] From the Massachusetts Commission on the Cost of Living, *Report*. Boston, 1910; pp. 498–500.

"cost of high living." This is another way of saying that many of us are inclined to be extravagant, and that this extravagance is an important factor in the rise of prices. The following discussion of this subject is from the 1910 *Report* of the Massachusetts Commission on the Cost of Living:

The meaning of extravagance.

One of the great factors leading up to the rise in prices, which must be given its due importance, is extravagance and its collateral evil of waste. Extravagance in its true economic meaning is an expenditure beyond one's means.

Extravagance is comparative:

In all ages of the world social standards have been set from above; and so long as those whose wealth or social prominence forces the newspapers to make them objects of public notice . . . salaried persons, from the highest to the lowest, down to wage-earners, follow the bad example. Extravagance is, after all, comparative. The

an example.

business man with an income of $10,000 a year can safely set a standard of living that would be ruinous to a shopkeeper at $2,000 a year, and imitation of the tradesman with $2,000 a year by the shoemaker at $15 a week would be equally ruinous. If increased brains, energy and enterprise did not result in enabling persons to indulge in reasonable luxuries, there would be no incentive to progress. The danger comes when the general tendency is toward spending beyond one's income, which is apparent to-day.

Extravagance does not breed prosperity.

When to Vitellius was given by his brother a banquet, at which were served 2,000 dishes of fish and 7,000 of birds, each being the rarest to be found in the world, with other courses to correspond, and when the emperor himself, to show his generosity, spent on his table in four months an amount estimated at $35,000,000 in our money, no doubt people of that day asserted that it was good for trade, and kept money in circulation, ignorant of the fact that rapid circulation of money is merely an index of activity only, and may or may not be an indication of wealth. The declaration that extravagance breeds prosperity is a bait for the thoughtless, invented by kings and spendthrifts, to excuse their indulgence.

How a nation may commit suicide.

Time has demonstrated that using the wealth of a nation or the world in taking people away from useful pursuits to purposes of luxury and extravagance spells national suicide, and that those nations which have attempted this in the past have ended in disaster.

A high standard of living must be distinguished from mere foolish expenditure.

Our crude necessities of life are food, clothing and shelter. As we multiply these three essentials, we grow in civilization; our tastes grow more exacting. We develop artificial wants by gratification, and these grow into necessities. Up to a certain point this is good. The common laborer of to-day is better housed, fed and clothed, and insists on and receives more comforts and luxuries than the Norman kings who ruled England in the twelfth century. The wage-earner of to-day lives under conditions that would have been deemed luxurious by a rich Englishman of the fifteenth century; and a tenement built in conformity to recent legislation is superior to the houses in which men of means lived in colonial days. No humane man or woman desires, or would countenance, any movement to reduce the standard of living or take away from the wage-earner the right to live decently and properly, to house, clothe, educate and amuse his family. It is only when foolish expenditure endangers the life of the nation that the line must be drawn.

The miser.

The remedy is not in going to the other extreme. The miser, who buries his gold, to this extent impedes commercial progress by taking it out of circulation, where it moves and works, giving employment to labor and doing good to all. If everybody with money were miserly, and kept it in hiding, labor would soon be idle and hungry.

Merely to tell people that they are spending too much will do little good.

While the Commission is unanimous in its belief that one of the causes of the present situation is the universal evil of spending too much, it realizes that saying so will do little good. Spending money is one of the things, like picking out a husband or a wife, on which few human beings are willing to accept any verdict except their own. It is true that we have great extravagances in this country; we also have great wealth, but we cannot retain both. The remedy, when it comes, must begin at the top. Governments, National, State and municipal, should and must set the good example which may be followed with wisdom by the wealthy. The wage-earners, who were the last to enter this mad contest of spending, will be the first to give it up, because on them its heaviest burdens fall.

207. Waste in the household[1]

The food problem.

Uneconomical management presents a number of phases, but we may here confine our attention to two of these. In the first place, people may *spend* their money unwisely. One form of unwise spending is known as extravagance, which was discussed in the preceding selection. On the other hand, people may *utilize* unwisely the commodities which they spend their money for. The average household commonly illustrates, in some measure, both of these forms of uneconomical management. For example, the housewife may spend money for food unwisely, and may also waste the food actually purchased. The uneconomical handling of the food problem, with particular reference to the waste of food after purchase, is discussed in the following extract from the *Report* of the Massachusetts Commission on the Cost of Living:

Food waste occurs in three principal ways:

Food waste in marketing,

1. Waste in marketing, including purchase of inedible material, purchase in small quantities, purchase for flavor and tenderness instead of nutrition, and sheer extravagance. . . . One housewife writes concerning the waste in marketing:

"The trend of the times goes to have everything put up in small packages, to save time in handling; but when one can buy in bulk, one can save far more than the careless or thoughtless buyer dreams of. For instance, if one buys a pail of lard, weighing from 1 to 3 pounds, one pays 20 cents a pound; by taking 50 pounds, one gets the best quality at 4 cents discount. One who buys an 80-pound bag of flour pays 90 cents; one buying a half-barrel bag saves 20 or 30 cents." . . .

in preparation, and

2. Waste in preparation, including preparation of too large quantity for the meal or day, food made inedible by poor cooking, and food unwholesome by wrong cooking. . . . There are few skilled cooks in small families, few who know how to plan just enough. Also, the rapid introduction of the gas stove, while a great convenience and saving of time, causes much loss in burned food. The attempt to prepare food from untried receipts, to suit a new mistress,

[1] From the Massachusetts Commission on the Cost of Living, *Report*. Boston, 1910; pp. 250–255.

swells the bulk of garbage. Wrong proportion of ingredients is responsible for much illness, with its consequent waste. . . .

in supplies and cooked food.

3. Waste in supplies and cooked food, including garbage pure and simple, and loss in moving and closing the house for the summer, when whole packages are thrown away, etc. . . . The housewife's greatest sin is in lack of oversight. The business man has learned that a superintendent pays. The housewife has even allowed herself to be shut out of her own kitchen and pantry; she does not know what is done with the meats and groceries that she pays for. The tastes of the men and maids regulate the bills of most families.

The thrifty housewife, who has some knowledge and the will to save, uses all but $\frac{1}{2}$ to 1 per cent of the edible food she buys. The average housewife, who does her own work, wastes 8 to 10 per cent, largely in meat and bread; bread pudding is to-day a despised dish, as is hash. . . . In Boston, $300,000 worth of grease is estimated to be thrown away in the swill.

The waste through servants.

The waste through servants is emphasized in a letter from a housewife, as follows: "It seems to me that the elimination of waste is nearly impossible in households where there are numerous servants; at least, I have found it so, with only one, and the waste rises in geometrical progression with the number employed. I have now been doing my own cooking for nearly a year, and I feed my family twice as well on about two-thirds of the cost. A large part of the saving comes in the economical use of meat. I make a delicious dinner with a few scraps of meat that a cook would give to the dog. . . . Cooks waste the coffee and tea horribly. Mix the coffee with cold water the night before, with an egg-shell, and bring it to a boil in the morning, and you do not need a great deal for a good cup of coffee. The tea in the kitchen is piled into the tea-pot and thrown out with but little of the goodness extracted. Another frightful waste is coal. I use less than half as much as any girl I ever had, and my stove bakes better. . . . There is no way I know of to eliminate waste except by looking after things yourself." . . .

Additional causes of the high cost of food.

A potent cause of high cost of food, as well as of waste in edible material, is the recent and increasing demand for perishable foods. Just as the demand for sirloin steak and breast of chicken means that one-sixth of the carcass must be made to yield the price, so the de-

mand for southern and hothouse fruits and vegetables raises the price. . . . Many men frown on twice-cooked meat, and do not as a rule care for "made dishes"; so that the wife with a thrifty soul soon tires of throwing away not only the food but the time she has spent. . . .

208. Some obstacles to wise spending[1]

The housewife is not altogether to blame for her ineffective expenditures.

It cannot be denied that such facts as are set forth in the preceding selection indicate carelessness and inefficiency on the part of many housewives. But though this is true, there is another side to the question. The modern housewife is confronted with grave obstacles in the matter of effective spending, and while these obstacles do not justify her neglect of the study of food values, they at least explain much of the ineffectiveness of her expenditures. Some of the handicaps of the housewife are explained in the following selection by Professor Wesley C. Mitchell:

Men versus women in purchasing.

An effective contrast might be drawn between the slipshod shopping of many housewives and the skilful, systematic buying done for business enterprises by men. But a fair comparison is between the housewife's shopping for the family, and her husband's shopping for strictly personal wants. Current opinion certainly represents women as more painstaking than men in making selections, and more zealous in hunting for bargains. Doubtless if men had to do the work they would do it otherwise in some ways, and doubtless they would think their ways better. But if men had to spend money under the limitations now imposed upon women by family life, they would certainly find the task exceedingly difficult. It is the character of the work more than the character of the women which is responsible for poor results. . . .

Handicaps under which the housewife labors in purchasing.

The housewife's tasks are much more varied than the tasks which business organization assigns to most men. She must buy milk and shoes, furniture and meat, magazines and fuel, hats and underwear, bedding and disinfectants, medical services and toys, rugs and candy. Surely no one can be expected to possess expert knowledge of the qualities and prices of such varied wares. The ease with which de-

[1] From Wesley C. Mitchell, *The Backward Art of Spending Money*. The American Economic Review, Vol. II, No. 2, June, 1912; pp. 271–274, 277.

fects of materials or workmanship can be concealed in finishing many of these articles forces the purchaser often to judge quality by price, or to depend upon the interested assurances of advertisers and shopkeepers. The small scale on which many purchases are made precludes the opportunity of testing before buying, and many articles must be bought hurriedly wherever they are found, at whatever price is asked. . . .

The fact that the wife's work is generalized, while the husband's is specialized

The young wife seldom approaches her household work in a professional spirit. She holds her highest duty that of being a good wife and a good mother. Doubtless to be a good manager is part of this duty; but the human part of her relationship to husband and children ranks higher than the business part. In a sense the like holds true for the man; but in his case the rôle of husband and father is separated more sharply from the rôle of money-maker. The one rôle is played at home, and other rôle in the fields, the shop, or the office. This separation helps the man to practice in his own activities a certain division of labor conducive to efficiency in money-making. He can give undivided attention during his working hours to his work.

explains some of the difference in the results obtained.

But the woman must do most of her work at home, amidst the countless interruptions of the household, with its endless calls from children and friends. She cannot divide her duties as a human being so sharply from her duties as a worker. Consequently, her housekeeping does not assume objective independence in her thinking, as an occupation in which she must become proficient. Household management, under the conditions of family life, is not sufficiently differentiated from other parts of the housewife's life to be prosecuted with the keen technical interest which men develop in their trades.

The business manager is relieved of trivial routine,

Upon the household manager, capable or not as she may be, family life commonly throws an exhausting routine of manual labor. In large business enterprises matters are managed better. The man who makes decisions, who initiates policies, who must exercise sound judgment, does no work with his hands beyond signing his name. He is relieved of all trivial duties, protected from all unnecessary intrusions. One of the handicaps of the small enterprise is that its manager must also keep the books, write the letters, or work in the shop — must disperse his energy over many tasks.

but this is rarely true of the household manager.

In the great majority of homes the housewife labors under a like handicap. If she has no servant, then cooking and sweeping, mending and shopping, tending the children and amusing her husband leave her little leisure and less energy for the work of management proper. Tired people stick in ruts. A household drudge can hardly be a good household manager. Even with one or two servants to assist them, many wives work longer hours than their husbands, and work under conditions which are more nervously exhausting. The number of housewives who have leisure time to develop the art of spending money wisely must be a very small percentage. . . .

What does the housewife seek to gain?

And what does the housewife seek to gain? The business man in quest of profits can answer such a question for himself in terms distinctly definite. To make money becomes an end in itself; to spend money involves some end beyond the spending. When the housewife pursues her problem to this final query she comes upon the most baffling of her difficulties.

The difficulty of answering this question.

Doubtless she can tell herself that she seeks the happiness of her husband and herself, the fair development of their children. But before these vague statements can serve as guides in the intensely practical problem of spending money, she must decide what happiness and development mean in concrete terms for her particular husband and children. Of course our housewives are seldom philosophers, and if they were they could not let the dishes go unwashed while they wrestled with the question of what is best worth while in life. Most women, indeed, do their work in an empirical spirit, so busied with obvious difficulties of detail that they are saved from seeing the deepest perplexities of their position. It is commonly the very young wife whose conscience is worried about the ultimate aims of her spending; and she is more likely as the years go by to stop thinking about this problem than to think it out. . . .

209. The practice of thrift[1]

The obligation to be thrifty.

The preceding discussion illustrates some of the obstacles which confront housewives who attempt to adjust their expenditures in accordance with economical principles. Other groups are likewise

[1] From the American Academy of Political and Social Science, *Annals*. Vol. LXXXVII. Philadelphia, January, 1920; pp. 11–15.

confronted with serious obstacles in the matter of spending money wisely. But though such obstacles help to *explain* the difficulties of wise spending, they do not excuse the individual from the *obligation* to spend his money *as wisely as possible.* The obligation to spend money as wisely as possible may be considered as part of the wider obligation to practice thrift intelligently and consistently. Thrift is a comprehensive term, and may be interpreted as inclusive of every form of economical management and utilization. Some of the essential principles of thrift are pointed out in the following selection by Professor Benjamin R. Andrews:

Nature of thrift.

Thrift is a means to the best life for individual and family as it insures that considered use of resources which will promote well-being. There is a current idea that the thrifty man is stingy and penurious, but rightly understood thrift means intelligence, forethought and plan in the use of resources, so as to promote personal well-being. In practice thrift calls for effective functioning on the part of the individual in the following economic relations:

The problem of thrift has five angles.

1. As one who earns, by increasing skill or output so as to enlarge money income or its equivalent.

2. As one who spends, by studying one's present needs so as to secure goods and services bringing the greatest possible satisfaction at the least possible cost.

3. As one who saves, by examining one's future needs so as to set aside funds liberally for all its contingencies.

4. As one who invests, by considering the placing of savings so that they will grow by interest or by increase of value so that principal and interest will be secure against loss.

5. As one who conserves whatever he has, by considering its wisest use so as to secure the greatest possible satisfaction from it, by avoiding waste, and by treating what is bought with money as though it had money's value. Thus there arises a fivefold thrift problem of the individual and family as regards earning, spending, saving, investing and conserving. . . .

Suggestions for efficiency in spending:

Written Budget Plans. . . . Engel stated certain economic laws of consumption, the more important of which are that the smaller the income the larger the proportion of it which must go for food, and that as income increases food expenditure relatively decreases

and the allowance for miscellaneous culture wants increases. A widely quoted American standard for middle class incomes is "the ideal budget" of the late Ellen H. Richards which allows one-fourth of the income for food, one-fifth for rent, one-seventh for clothing, and one-fourth for culture wants or the "higher life." . . . The written budget.

Written accounts of expenditure, . . . at least during periods of readjustment, are desirable. Needs for expenditure should have critical examination. The classical division of wants into necessities, comforts and luxuries gives a starting point. . . .

Intelligent direction of spending will increase its efficiency. This naturally centers in the housewife, but often certain responsibilities may be wisely assigned to others. . . . In a matter like the purchase of food, clothing, shelter and other goods in the market with which every individual has life-long contacts, it is astonishing that the general level of intelligence is not higher. . . . The intelligent direction of spending.

In food expenditure, thrift requires that the purposes of nutrition be adequately met, including the growth and maintenance of the body and the production of energy, and that this be done at a reasonable cost. It asks such questions as: . . . Are necessary mineral constituents and growth-promoting vitamens provided? Is variety of diet guaranteed by including food from all five groups, — grain products, fruits and vegetables, meats, sugars and fats? . . . Do finicky food habits add to cost? Is food cost reasonable? Is quantity buying followed where practicable? Are stores selected for economy as well as convenience? Thrift in food expenditure.

In clothing costs, thrift promotes economy by such queries as these: Is clothing chosen so as to promote health and secure length of service as well as "for looks"? Does fashion increase clothing costs beyond reason? . . . Clothing costs.

In housing, thrift stands for adequate provision as to space, light, air, arrangement of rooms for ease in house-work as well as to meet the personal and social needs of the family group. It raises such questions as: Is there any better investment than owning one's own home? Are we spending unnecessarily for display in the house? Thrift in housing

In household operating expenses, thrift demands adequate heating, lighting, water-supply and housekeeping supplies. It justifies hired

and in household operating expenses.

service where the housewife has other useful employment or is unable to do all the work. It raises such questions as: Can supplies be bought cheaper in quantity? Is the heating and lighting system efficient and economical? Is the telephone justified, and if so, is postage a cheaper substitute for many toll calls? Do the members of the household coöperate fully in reducing the burden of daily household tasks which come upon the housewife or her hired substitute?

Thrift in culture wants.

In culture wants, thrift emphasizes their importance as compared with material wants and asks full provision for education, for personal development and for health, and reasonable provision for physical and mental recreation, for necessary expenses for personal care and for incidental needs. But thrift asks: Are large personal indulgence expenditures justifiable? Do they not give special treatment for one or more members of the family as compared with others? Is special musical or art instruction to an ungifted person wise? Should recreation expenditures exceed cultural expenditures of the sort which, for lack of a better term, are called educational and ethical? . . .

210. Defences of the consumer[1]

The consumer is an object of attack, but he is not without his defences.

From the point of view of the community, the great aim of production is the satisfaction of human wants. If, on the other hand, we look at things purely from the standpoint of the *producer*, it must be admitted that the great driving force back of production is the desire to secure purchasers for a given commodity or service. The consumer is thus an object of attack from all sides. Numerous producers, not only of an identical type of commodity, but of competing goods, fix their eyes upon the consumer as a possible source of gain. But while the consumer is thus an object of attack, he is not without his defences, that is to say, the consumer as a class has certain characteristics which meet, and, in a measure, offset the advances of the selling group. These defences of the consumer are discussed in the following passage by a student of business economics, Professor Paul T. Cherington:

[1] From Paul T. Cherington, *Advertising as a Business Force*. Doubleday, Page & Co., New York, 1913; pp. 93–94.

(1) The consumer's spending power is limited by his earning ability. He may develop, or have stirred in him, new wants, strong enough to make him work harder in order to earn more, but he cannot honestly spend more money than he earns, no matter how complicated his wants may become. This sets a final limit on consuming capacity, and sets a limit to the exercise of his will. The consumer's spending power limited by his earning ability.

(2) The strength of the consumer's saving instinct determines the margin between his earning power and his willingness to spend. The strength of this instinct is only relative and here the consumer is vulnerable. His "will to save" is elastic. The will to save.

(3) The "standard of living," the opinion of the class to which the consumer belongs as to what may be expected of him in the spending of his income, has its constant effect on a civilized man's conduct, and this again is relative and open to attack. Effect of the standard of living.

(4) Price habits have tended to become fixed in many lines of retail business. The consumer has come to accept an increasing number of set prices, and set price intervals. There may be a few places in in this country where a man expects to find a necktie line regularly carried at some price other than 50 cents or $1 or upward, but they are few. And so it is with suspenders, shirts, shoes, socks — almost everything a man wears — certain price habits have become well established. This puts competition in these lines on a basis of quality, or service. It makes purchase easy for the consumer, but it modifies the character of the advertising appeal. . . . The effect of price habits.

(5) Buying habits are undergoing modification also. And these make another change in the advertiser's position. With price "higgling" partly eliminated, and the whole problem of appeal and sale based on quality and guaranteed satisfaction, the consumer has come to expect that goods be bought without bargaining. The consumer certainly is safer in his purchasing, but equally certainly he is more careless. Buying habits.

(6) And again there is the effect of the multiplicity of appeals being made to the consumer. The individual consumer and the consumer as a class is appealed to from so many sides that the effect of no single appeal can be what it would if it stood alone.

To sum up these consumer defences we find that, while the consumer, as an individual or as a class, may be led, stimulated, diverted, Summary.

directed or otherwise influenced in buying, there are certain roughly ascertainable limits to the effects which may be expected to follow attacks on the will of the consumer. There are certain limits beyond which his earning power will not let him go, there are others, less certain, beyond which he will not buy unless his saving impulses are stifled, there are social and commercial habit barriers to consumer diversion, and last of all the appeals to the consumer may partly neutralize each other by their mere multiplicity. . . .

Questions on the foregoing Readings

1. Into what four sections is the study of economics ordinarily divided?
2. Illustrate the statement that "the way people spend their money determines the course of production."
3. Explain the statement that "whether the production of durable things is called an act of thrift or an act of extravagance will depend upon the viewpoint and ideals of the people."
4. What is meant by the statement that "the high cost of living is sometimes really the cost of high living"?
5. What is meant by extravagance?
6. What is meant by saying that "extravagance is comparative"?
7. Show that extravagance does not breed prosperity.
8. Where must the remedy for extravagance first be applied?
9. Illustrate the waste of food in marketing.
10. Give some examples of food wasted in preparation.
11. What is the relation between servants and waste?
12. What are some additional causes of the high cost of food?
13. Compare men and women in the matter of purchasing.
14. What are some of the handicaps under which the housewife labors in purchasing?
15. What is the significance of the fact that the housewife's work is generalized, while that of the husband tends to be specialized?
16. What is the most baffling of all the difficulties confronting the housewife?
17. What does the term "thrift" include?
18. Name the five angles exhibited by the problem of thrift.
19. What is the advantage of keeping accounts of expenditures?
20. What can be said as to thrift in housing and in household operating expenses?
21. What is the meaning of the phrase "thrift in culture wants"?
22. What, from the standpoint of the *producer*, is the great driving force back of production?
23. Enumerate some of the defences of the consumer.

CHAPTER XXXVI

SUMMARY AND CONCLUSION

211. The lot of man is improving[1]

The standard of living is rising steadily

In summary of the whole problem of getting a living in the world of to-day, numerous questions arise to confront the American people. Of these none is of greater importance than that which concerns the well-being of our population. What is the position of the people of the United States? Is their lot improving, is it remaining stationary, is it becoming worse? To these questions very diverse answers may be given, depending upon the point of view of the student. As measured by the standard of living, however, there is unquestioned proof that although American life bristles with unsolved industrial and social problems, the lot of the people is steadily improving. The following proof in favor of this view is taken from the 1910 *Report* of the Massachusetts Commission on the Cost of Living:

among all the ranks of the population.

The general advance of the standard of living throughout all the ranks of the population, from the highest to the lowest, is manifestly one of the most potent causes of the increase of the demand for commodities, and consequently of the advance of prices. On every side the wants of the people have been multiplied and diversified. They demand more and better things. Their requirements are larger, more varied, and more exacting. The growth of the cities, the cult of fashion, the increase of leisure and numberless factors have combined to bring about this advance of living standards. . . .

The requirements of the consumer with respect to

The various factors entering into the advance of the standard of living have been admirably analyzed by Marcus M. Marks. He points out the extension of the consumer's requirements with reference to the five necessities of civilized existence, — food, shelter, clothing, education and society, — as follows:

[1] From the Massachusetts Commission on the Cost of Living, *Report*. Boston, 1910; pp. 494–496.

food, 1. *Food.* — Finer and more varied food than heretofore is now generally demanded by the workingman, on account of an educated taste, and also, perhaps, because of the more general publicity as to what is consumed by the other classes. The result is an increased demand, which advances prices.

shelter, 2. *Shelter.* — The standards of home conditions as to sanitation, light, air, and comfort have steadily advanced, until, as a result, more, larger, and costlier buildings are required to house the same number of people, with a corresponding increase in rent. This creates a larger demand for building materials and labor.

clothing, 3. *Clothing.* — In former days garments were often worn until the color changed and the cloth became threadbare; nowadays the workingman discards clothing long before these conditions appear. Style has become more imperious and fashions more fickle. As is the case in the improvement of homes, so naturally the larger demand for clothing vastly increases the demand for materials and labor. The resulting scarcity of wool, for example, has greatly advanced its market price.

education, and 4. *Education.* — The present broader and more general education, even though free from direct expense to the workingman, adds to his cost of living by refining his tastes and increasing his desires. For example, the purchase of a morning paper is now his regular habit; an evening paper almost equally so; popular books and magazines are included in the necessities of life; furthermore, life insurance premiums and many other expenses incident to present-day enlightenment are added to the cost of the workingman's living.

society. 5. *Society.* — Finally, the desire for social intercourse, greater in this day of general coöperation and interdependence than ever before, again adds to the list of necessary expenses; there are many outlays incident to going about and mingling with one's fellows which need not be here detailed, but must be added to the cost of what is now included in true living.

The growth of leisure. The growth of leisure, in the form of holidays and vacations, is a notable feature of the advance of the standard of living. Before the Civil War few save the wealthy ever thought of taking a vacation regularly each year; now it is the common practice. The result is undoubtedly beneficial to those who thus get fresh energy, and without

it many more workers would break down under the strain of modern competitive conditions. . . .

212. The duty of the individual[1]

Importance of the attitude of the individual.

Although American industry is progressing, and although the standard of living for the individual is steadily advancing, numerous problems continue to face us. Because of the pressing nature of these problems, it is necessary that we inquire somewhat into the responsibilities of the individual and into the principles which ought to govern his daily actions. The fate of the nation, it cannot be said too often, will depend upon the attitude of the individuals composing it. The relation of individual conduct to national progress is discussed in the following passage by an American publicist, Mr. Herbert Croly:

The duty of the individual is to do his own particular job as best he can.

How can the duty and the opportunity of the individual at the present time best be defined? Is he obliged to sit down and wait until the edifying, economic, political transformation has taken place? Or can he by his own immediate behavior do something effectual both to obtain individual emancipation and to accelerate the desirable process of social reconstruction? This question has already been partially answered by the better American individual; and it is, I believe, being answered in the right way. The means which he is taking to reach a more desirable condition of individual independence (and inferentially to add a little something to the process of national fulfillment), consist primarily and chiefly in a thoroughly zealous and competent performance of his own particular job. . . .

The industrial development of the United States has increased the opportunities for personal efficiency and independence,

A . . . transformation has been taking place in the technical aspects of American industry. In this field the individual has not been obliged to make his own opportunities to the same extent as in business, politics, and the arts. The opportunities were made for him by the industrial development of the country. Efficient special work soon became absolutely necessary in the various branches of manufacture, in mining, and in the business of transportation. . . . Little by little the amount and the standard of technical instruction improved; while at the same time the greater industrial organizations

[1] From Herbert Croly, *The Promise of American Life.* The Macmillan Co., New York, 1910; pp. 428–431.

themselves trained their younger employees with ever increasing efficiency. Of late years even farming has become an occupation in which special knowledge is supposed to have certain advantages. In every kind of practical work specialization, founded on a more or less arduous course of preparation, is coming to prevail; and in this way individuals, possessing the advantages of the necessary gifts and discipline, are obtaining definite and stimulating opportunities for personal efficiency and independence.

but though the lot of the individual has improved,

It would be a grave mistake to conclude, however, that the battle is already won — that the individual has already obtained in any department of practical or intellectual work sufficient personal independence or sufficiently edifying opportunities. The comparatively zealous and competent individual performer does not, of course, feel so much of an alien in his social surroundings as he did a generation or two ago. He can usually obtain a certain independence of position . . . and a sufficiently substantial measure of reward.

he still has much to contend against.

But he has still much to contend against in his social, economic, and intellectual environment. His independence is precarious. . . . The society in which he lives, and which gives him his encouragement and support, has the limitations of a clique. Its encouragement is too conscious; its support too wilful. . . . He is encouraged to do good work, but not to do always and uncompromisingly his best work. He is trusted, but he is not trusted enough. He believes in himself, but he does not believe as much in himself and in his mission as his own highest achievement demands. He is not sufficiently empowered by the idea that just in so far as he does his best work, and only his best work, he is contributing most to national as well as personal fulfillment.

The individual needs more faith in his own individual purpose and power.

What the better American individual particularly needs, then, is a completer faith in his own individual purpose and power — a clearer understanding of his own individual opportunities. He needs to do what he has been doing, only more so, and with the conviction that thereby he is becoming not less but more of an American. His patriotism, instead of being something apart from his special work, should be absolutely identified therewith, because no matter how much the eminence of his personal achievement may temporarily divide him from his fellow-countrymen, he is, by attaining to such an

eminence, helping in the most effectual possible way to build the only fitting habitation for a sincere democracy. He is to make his contribution to individual improvement primarily by making himself more of an individual. The individual as well as the nation must be educated and "uplifted" chiefly by what the individual can do for himself. Education, like charity, should begin at home.

How the individual can best serve his fellows.

An individual can, then, best serve the cause of American individuality by effectually accomplishing his own individual emancipation — that is, by doing his own special work with ability, energy, disinterestedness, and excellence. The scope of the individual's opportunities at any one time will depend largely upon society, but whatever they amount to, the individual has no excuse for not making the most of them. Before he can be of any service to his fellows, he must mould himself into the condition and habit of being a good instrument. On this point there can be no compromise. Every American who has the opportunity of doing faithful and fearless work, and who proves faithless to it, belongs to the perfect type of the individual anti-democrat. By cheapening his own personality he has cheapened the one constituent of the national life over which he can exercise most effectual control; and thereafter, no matter how superficially patriotic and well-intentioned he may be, his words and his actions are tainted and are in some measure corrupting in their social effect. . . .

213. The struggle to see the unseen[1]

An earmark of a good economist.

One of the most difficult things which the individual is called upon to do is to perceive intangible forces as clearly as he sees material objects, and to weigh hidden causes and effects as surely as he weighs those which are obvious. An act, a habit, an institution, or a law gives birth not only to an effect, but to a series of effects. Often the immediate of these effects are seen and appreciated, but those which follow and which are hidden are not perceived. An important earmark of a good economist is the capacity to foresee hidden effects and consequences, and to govern his actions by these as well as by immediate and visible effects. No one has illustrated the importance of this more powerfully than the brilliant French economist, Frederic

[1] From Frederic Bastiat, *Essays on Political Economy*. London, 1853. Part II. pp. 5–8.

Bastiat. His celebrated story of the broken window, designed primarily to illustrate the fallacy of a protective tariff, will illustrate this point. The story follows:

A pane of glass is broken, but then the glaziers must live.

Have you ever witnessed the anger of the good shopkeeper, James B., when his careless son happened to break a square of glass? If you have been present at such a scene you will most assuredly bear witness to the fact that every one of the spectators . . . by common consent apparently, offered the unfortunate owner this invariable consolation: "It is an ill wind that blows nobody good. Everybody must live, and what would become of the glaziers if panes of glass were never broken?"

What is seen,

Now this form of condolence contains an entire theory, which it will be well to show in this simple case. . . . Suppose [that this accident results in a gain of six francs to] the glazier's trade, — that it encourages that trade to the amount of six francs, — I grant it; I have not a word to say against it; you reason justly. The glazier comes, performs his task, receives his six francs, rubs his hands, and in his heart blesses the careless child. All this is *that which is seen.*

and what is not seen.

But if, on the other hand, you come to the conclusion, as it is too often the case, that it is a good thing to break windows, that it causes money to circulate, and that the encouragement of industry in general will be the result of it, you will oblige me to call out, "Stop there! your theory is confined to that which is seen; it takes no account of that *which is not seen.*"

It is not seen that as our shopkeeper has spent six francs upon one thing, he cannot spend them upon another. *It is not seen* that if he had not had a window to replace, he would perhaps have replaced his old shoes, or added another book to his library. In short, he would have employed his six francs in some way which this accident has prevented.

What is seen, and

Let us take a view of industry in general, as affected by this circumstance. The window being broken, the glazier's trade is encouraged to the amount of six francs; *this is that which is seen.*

what is not seen.

If the window had not been broken, the shoemaker's trade (or some other) would have been encouraged to the amount of six francs; *this is that which is not seen.*

And if *that which is not seen* is taken into consideration, . . . as

well as that which is seen, . . . it will be understood that neither industry in general, nor the sum total of national labor is affected, whether windows are broken or not.

The story of the broken window

Now let us consider James B. himself. In the former supposition, that of the window being broken, he spends six francs, and has neither more nor less than he had before, — the enjoyment of a window.

In the second supposition, where we suppose the window not to have been broken, he would have spent six francs in shoes, and would have had at the same time the enjoyment of a pair of shoes and a window.

Now as James B. forms a part of society, we must come to the conclusion that, taking it altogether, and making an estimate of its enjoyments and its labors, it has lost the value of the broken window.

demonstrates that Society cannot profit from acts of destruction.

Whence we arrive at this unexpected conclusion, "Society loses the value of things which are uselessly destroyed"; and we must assent to a maxim which will make the hair of the protectionists stand on end. — To break, to spoil, to waste, is not to encourage national labor; or, more briefly, "destruction is not profit." . . .

[Someone has calculated how much trade would gain by the burning of Paris, from the number of houses it would be necessary to rebuild.] I am sorry to disturb these ingenious calculations, as far as their spirit has been introduced into our legislation; but I beg him to begin them again by taking into account *that which is not seen*, and placing it alongside of *that which is seen*.

Summary and

The reader must take care to remember that there are not two persons only, but three, concerned in the little scene which I have submitted to his attention. One of them, James B., represents the consumer, reduced by an act of destruction to one enjoyment instead of two. Another, under the title of glazier, shows the producer, whose trade is encouraged by the accident. The third is the shoemaker (or some other tradesman), whose labor suffers proportionably by the same cause. It is this third person who is always kept in the shade, and who, personating *that which is not seen*, is a necessary element of the problem. It is he who shows us how absurd it is to think we see a profit in an act of destruction. It is he who will soon teach us that it is not less absurd to see a profit in a restriction, which is, after all, nothing else than a partial destruction.

conclusion.

Therefore, if you will only go to the root of all the arguments which are adduced in its favor, all you will find will be the paraphrase of this vulgar saying, *What would become of the glaziers if nobody ever broke windows?*

214. Perfection the goal[1]

Man insists upon an ideal.

There is no more persistent characteristic of civilized man than his insistence upon a high ideal or a distant goal. The character of this ideal or goal varies with the type of the individual and with the nature of the civilization surrounding him, but among progressive peoples everywhere there is some such stimulus to achievement. Since the dawn of history a common ideal back of the best in human action is that of perfection, that is to say, the thirst for a perfect state, and the tenacious belief that human affairs can ultimately be purged of all imperfections and evils. The idealistic faith in perfectibility is voiced by Frederic Bastiat in the following passage:

We cannot escape the conclusion that the human race is perfectible.

That the human race is perfectible; that it progresses toward a high and higher level; that its wealth is increasing and becoming more equalized; that its ideas are being enlarged and purified; that its errors, and the oppressions which these errors support, are disappearing; that its knowledge shines with brighter and brighter effulgence; that its morality is improving; that it is learning, by reason or by experience, in the domain of responsibility, the art of earning a constantly larger amount of recompense, and a constantly smaller amount of chastisement; that, consequently, evil is continually lessening, and good continually increasing; — these are conclusions which it is impossible to doubt when we scrutinize the nature of man and that intelligent principle which is his essence. . . .

The significance of men's intelligence.

What constitutes man's perfectibility is his intelligence, or the faculty which has been given to him of passing from error, which is the parent of evil, to truth, which is the generating principle of good. It is science and experience which cause man to abandon, in his mind, error for truth, and afterwards, in his conduct, evil for good; it is the discovery which he makes, in phenomena and in acts, of effects which he had not suspected. But to enable him to acquire

[1] From Frederic Bastiat, *Harmonies of Political Economy*. Oliver & Boyd, Edinburgh, 1880; pp. 508–510.

this science, he must have an interest in acquiring it. In order that he should profit by this experience, he must have an interest in profiting by it. It is in the law of responsibility, then, that we must search for the means of realizing human perfectibility.

Liberty is the very essence of progress.

And as we can form no idea of responsibility apart from liberty; as acts which are not voluntary can afford neither instruction nor available experience . . . we must conclude that liberty is the very essence of progress. To impair man's liberty is not only to hurt and degrade him; it is to change his nature; it is to render him incapable of improvement; it is to despoil him of his resemblance to the Creator; it is to dim and deaden in his noble nature that vital spark which glowed there from the beginning.

But in thus proclaiming aloud our fixed and unalterable belief in human perfectibility, and in progress, which is necessary in every sense, and which, by a marvellous correspondence, is as much more active in one direction as it is more active in all others, we must not be regarded as indulging in Utopianism, or be considered, as optimists, believing "all to be for the best, in the best of worlds," and expecting the immediate arrival of the millennium.

Many circumstances tempt us to pessimism,

Alas! when we turn our regard on the world as it is, and see around us the enormous amount of mud and meanness, suffering and complaint, vice and crime, which still exist, — when we reflect on the moral action exerted on society by the classes who ought to be pointing out to the lagging multitude the way to [progress] — when we ask ourselves what use the rich make of their fortune, the poets of their genius, philosophers of their scientific [labors], ministers of state, representatives of the people, kings, of the power which fate has placed in their hands, — when . . . we see that great and inevitable moving spring of the human race, *personal interest*, still making its appearance only in manifestations the most material and the most improvident, . . . when such spectacles present themselves to us on all sides, we get afraid of ourselves, we tremble for our faith in human perfectibility, the light would seem to waver, and be on the eve of extinction, leaving us in the fearful darkness of pessimism.

but wait! humanity still moves onward.

But no! there is no ground for despair. Whatever be the impressions which too recent circumstances have made upon us, humanity still moves onward. What causes the illusion is that we measure the

life of nations by the short span of our own individual lives; and because a few years are a long period for us, we imagine them also a long period for them. But even adopting this inadequate measure, the progress of society on all sides is visible. . . .

215. A high ideal means much climbing[1]

Importance of the capacity to work long and patiently for a desired end.

Whether or not we agree with Bastiat in his belief that the human race is perfectible, all intelligent persons will agree that it is highly desirable that a people cultivate high aims and ideals. Now high ideals are common, both among individuals and among nations; what is less common is sufficient tenacity of purpose to cling to those ideals during periods in which it appears that little or no progress is being made. One test of whether or not we are worthy to achieve high distinction is the capacity to work long and patiently for a desired end. The mere fact that an ideal is an exalted one implies that we must travel a great distance to reach it. For this reason we must be patient, and though consistently hopeful, we must not expect to attain the millennium at one leap. One aspect of this subject is developed in the following passage in which an American statesman, Elihu Root, warns against the futility of Utopian legislation:

Popular will must express itself through the established channels of government.

When proposals are made to change [our fundamental] institutions there are certain general conditions that should be observed. The first consideration is that free government is impossible except through prescribed and established governmental institutions, which work out the ends of government through many separate human agents, each doing his part in obedience to law. Popular will cannot execute itself directly except through a mob. Popular will cannot get itself executed through an irresponsible executive, for that is simple autocracy. . . .

Too much must not be expected of government.

A second consideration is that in estimating the value of any system of governmental institutions due regard must be had to the true functions of government, and to the limitations imposed by Nature upon what it is possible for the government to accomplish. We all know . . . that we cannot abolish the evils in the world by statute . . . nor can we prevent the inexorable law of Nature which decrees that

[1] From Elihu Root, *Experiments in Government and the Essentials of the Constitution*. Princeton University Press, Princeton, New Jersey, 1913; pp. 11, 13–22.

suffering shall follow vice, and all the evil passions and folly of mankind. Law cannot give to depravity the rewards of virtue, to indolence the rewards of industry, to indifference the rewards of ambition, or to ignorance the rewards of learning. The utmost that government can do is measurably to protect men, not against the wrong they do themselves, but against the wrong done by others, and to promote the long slow process of educating mind and character to a better knowledge and nobler standards of life and conduct. . . .

The dangers which accompany the attempt of government to do too much.

A third consideration is that it is not merely useless but injurious for government to attempt too much. It is manifest that to enable it to deal with the new conditions . . . we must invest government with the authority to interfere with the individual conduct of a citizen to a degree hitherto unknown in this country. . . . While the new conditions of industrial life make it plainly necessary that many such steps shall be taken, they should be taken only so far as they are necessary and effective. Interference with individual liberty by government should be jealously watched and restrained, because the habit of undue interference destroys that independence of character without which, in its citizens, no free government can endure. . . . Just so far as a nation allows its institutions to be molded by its weakness of character rather than by its strength, it creates an influence to increase weakness at the expense of its strength. [Undue interference by government is at] the expense of individual initiative, energy, enterprise, courage, independent manhood. . . .

Government is imperfect because men are imperfect.

A fourth consideration is that in the nature of things all government must be imperfect because men are imperfect. Every system has its shortcomings and inconveniences; and these are seen and felt as they exist in the system under which we live, while the shortcomings and inconveniences of other systems are forgotten or ignored. It is not unusual to see governmental methods reformed and, after a time long enough to forget the evils that caused the change, to have a new movement for reform which consists in changing back to substantially the same old methods that were cast out by the first reform. The recognition of shortcomings is . . . not in itself sufficient to warrant a change of system. There should be an effort to estimate and compare the shortcomings . . . of the system to be substituted, for although they may be different they will certainly exist.

Let us hold fast to that which is good.

A fifth consideration is that, whatever changes in government are to be made, we should follow the method which undertakes as one of its cardinal points to hold fast to that which is good . . . . When we take account of all that governments have sought to do and have failed to do in this . . . world, we find as a rule that the application of new theories of government, though devised by the most brilliant constructive genius, have availed but little to preserve the people . . . for any long periods from the evils of despotism on one hand or of anarchy on the other, or to raise any considerable portion of the mass of mankind above the hard conditions of oppression and misery. And we find that our system of government, which has been built up in a practical way through so many centuries . . . has done more to preserve liberty, justice, security, and freedom of opportunity, for many people for a long period, than any other system of government ever devised by man.

Conclusion.

Human nature does not change very much. The forces of evil are hard to control now as they have always been. It is easy to fail and hard to succeed in reconciling liberty and order. . . .

216. The promise of American life[1]

A look backward and a glance ahead.

In view of what has been said, what is the outlook for American democracy? What is the promise of American life? We have accomplished much, and yet a cursory glance at the future must convince the most optimistic observer that there is much more to be done than has already been accomplished. One of our great ideals is the achievement of democracy, and as here used democracy means not only political control by the people, but equality of opportunity in social and economic interests. What are the prospects that this larger type of democracy will be realized? By what means shall we solve the grave economic, social, and political problems which have come to the fore in the last half century? These questions are discussed in the following passage by Herbert Croly:

The conscious recognition of grave national abuses casts a deep shadow across the traditional American patriotic vision. The sincere and candid reformer can no longer consider the national Promise as

[1] From Herbert Croly, *The Promise of American Life*. The Macmillan Co., New York, 1910; pp. 20–24.

destined to automatic fulfillment. The reformers themselves are, no doubt, far from believing that whatever peril there is cannot be successfully averted. . . . They proclaim even more loudly their conviction of an indubitable and beneficent national future. But they do not and cannot believe that this future will take care of itself. As reformers they are bound to assert that the national body requires for the time being a good deal of medical attendance, and many of them anticipate that even after the doctors have discontinued their daily visits the patient will still need the supervision of a sanitary specialist. He must be persuaded to behave so that he will not easily fall ill again, and so that his health will be permanently improved.

We now recognize that the ideals of our country will be attained, not as the result of automatic development, but

Consequently, just in so far as reformers are reformers they are obliged to abandon the traditional American patriotic fatalism. The national Promise has been transformed into a closer equivalent of a national purpose, the fulfillment of which is a matter of conscious work.

as the result of conscious work.

The transformation of the old sense of a glorious national destiny into the sense of a serious national purpose will inevitably tend to make the popular realization of the Promise of American life both more explicit and more serious. As long as Americans believed they were able to fulfill a noble national Promise merely by virtue of maintaining intact a set of political institutions and by the vigorous individual pursuit of private ends, their allegiance to their national fulfillment remained more a matter of words than of deeds; but now that they are being aroused from their patriotic slumber, the effect is inevitably to disentangle the national idea and to give it more dignity. The redemption of the national Promise has become a cause for which the good American must fight, and the cause for which a man fights is a cause which he more than ever values. . . .

The achievement of our national ideal is now a matter of deeds, rather than of words.

[Let us consider the significance of this changed viewpoint. The substance of our national Promise has consisted] of an improving popular economic condition, guaranteed by democratic political institutions, and resulting in moral and social amelioration. These manifold benefits were to be obtained merely by liberating the enlightened self-interest of the American people. The beneficent result followed inevitably from the action of wholly selfish motives — provided, of course, the democratic political system of equal rights was

Our ideal has been to improve the economic condition of the masses.

maintained in its integrity. The fulfillment of the American Promise was considered inevitable because it was based upon a combination of self-interest and the natural goodness of human nature.

The achievement of this ideal demands

On the other hand, if the fulfillment of our national Promise can no longer be considered inevitable, if it must be considered as equivalent to a conscious national purpose instead of an inexorable national destiny, the implication necessarily is that the trust reposed in individual self-interest has been in some measure betrayed. No pre-established harmony can then exist between the free and abundant satisfaction of private needs and the accomplishments of a morally and socially desirable result.

the subordination of individual desires to social considerations.

The Promise of American Life is to be fulfilled — not merely by a maximum amount of economic freedom, but by a certain measure of discipline; not merely by the abundant satisfaction of individual desires, but by a large measure of individual subordination and self-denial. And this necessity of subordinating the satisfaction of individual desires to the fulfillment of a national purpose is attached particularly to the absorbing occupation of the American people, — the occupation, viz.: of accumulating wealth. The automatic fulfillment of the American national Promise is to be abandoned, if at all, precisely because the traditional American confidence in individual freedom has resulted in a morally and socially undesirable distribution of wealth. . . .

The national ideal must coincide with the idea of a prosperous and happy people.

The consequences, then, of converting our American national destiny into a national purpose are beginning to be revolutionary. When the Promise of American life is conceived as a national idea, whose fulfillment is a matter of artful and laborious work, the effect thereof is substantially to identify the national purpose with the social problem. What the American people of the present and future have really been promised by our patriotic prophecies is an attempt to solve that problem. They have been promised on American soil comfort, prosperity, and the opportunity for self-improvement; and the lesson of the existing crisis is that such a Promise can never be redeemed by an indiscriminate individual scramble for wealth. The individual competition, even when it starts under fair conditions and rules, results, not only, as it should, in the triumph of the strongest, but in the attempt to perpetuate the victory; and it is this attempt

which must be recognized and forestalled in the interest of the American national purpose.

The way to realize a purpose is, not to leave it to chance, but to keep it loyally in mind, and adopt means proper to the importance and difficulty of the task. No voluntary association of individuals, resourceful and disinterested though they be, is competent to assume the responsibility. The problem belongs to the American national democracy, and its solution must be attempted chiefly by means of official national action . . .

The way to realize a purpose.

Questions on the foregoing Readings

1. Is the standard of living in the United States rising, falling, or remaining stationary?
2. Name some factors which affect the standard of living.
3. Comment upon the requirements of the consumer with respect to food and clothing.
4. Discuss the consumer's requirements in the matter of education.
5. What can be said as to the growth of leisure?
6. What is the importance of the attitude of the individual?
7. What, according to Herbert Croly, is the duty of the individual?
8. What is meant by the statement that "the individual needs more faith in his own individual purpose and power"?
9. How can the individual best serve his fellows?
10. Name an earmark of a good economist.
11. Who is Frederic Bastiat?
12. Trace carefully the steps in his story of the broken window, and point out the lesson that it illustrates.
13. Summarize Bastiat's argument, in order to show that there is no profit to Society in an act of destruction.
14. Name a persistent characteristic of civilized man.
15. What does Bastiat mean by the statement that "what constitutes man's perfectibility is his intelligence"?
16. What is the relation between liberty and progress?
17. What are some circumstances which tempt us to become pessimistic concerning the future of the human race?
18. Why does Bastiat believe that, in spite of these circumstances, there is no ground for despair?
19. What is the importance of the capacity to work long and patiently for a desired end?
20. What, according to Elihu Root, is the utmost that government can do?
21. Why is government imperfect?
22. What change has come about with respect to our national Promise?

23. How is the Promise of American Life to be fulfilled?
24. Explain what is meant by the statement that "the national ideal must coincide with the idea of a prosperous and happy people."
25. What, according to Herbert Croly, is the proper way to achieve a purpose?

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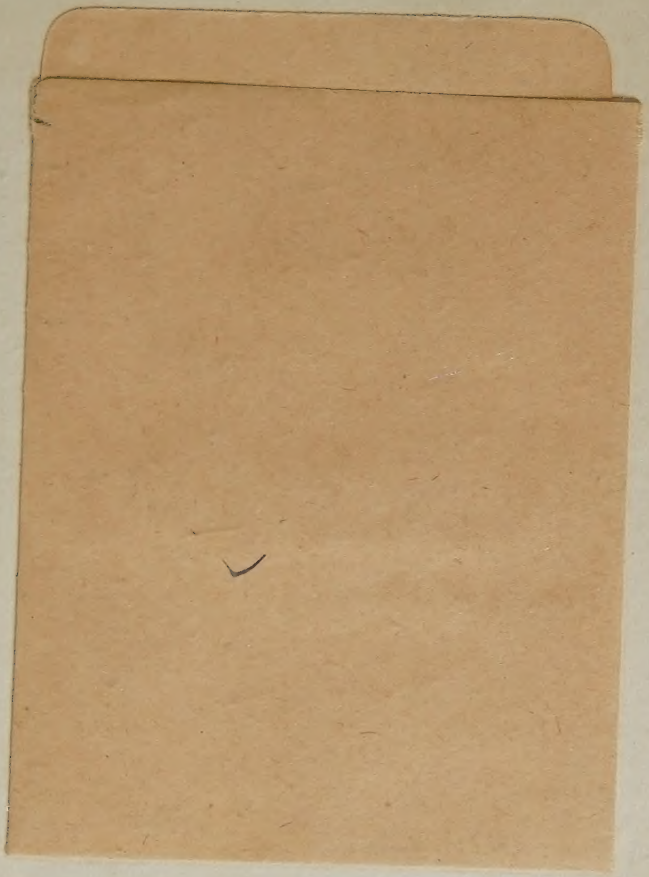

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